

PRELIMINARY REPORT

EASTERN AREA CRUISE NUMBER 40
CORONADO ISLANDS

Prepared

by

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Preliminary Report

Eastern Area Cruise Number 40
Coronado Islands

Itinerary:

1040 - 1 May 1968 Land on North Island, Coronados Islands.
1400 -1530 - 1 May 1968 Survey Center Island from raft.
0800 - 2 May 1968 Depart North Island.

During the period 1-2 May 1968 Robert DeLong and Richard Crossin surveyed North Island in the Coronados Islands offshore Baja California, Mexico. A brief run with a raft was made about the two islets comprising Center Island, but no landing was made. The following day we were transported to the islands and picked up by the charter vessel SIOUX CITY. The west and south sides of North Island were surveyed by raft, and seals and sea birds were recorded. All other pertinent data are included in the accounts below. Unless otherwise stated, all discussion concerns data collected on North Island.

SPECIES ACCOUNTS

Oceanodroma melania

Black Petrel

An unsuccessful preliminary search was made during daylight hours for this species. After observing the nest sites at night, it is doubtful if we would have detected the birds during the daytime if they had been there. Exactly at full dark, birds began flying in over the island and calls would soon be heard from all directions. The appearance of the storm petrels was exactly coincident with termination of Western Gull movements. This flight timing of the storm petrels has likely evolved in direct response to the movements of the predatory gulls. In the Central Pacific the White-throated Storm Petrel (Nesofregetta albigularis), with no resident predators, begins flying over the nesting islands in early evening, long before full dark. Flight activity in the Black Petrel was most intense during the first few hours after dark and essentially stopped by 2400 hours. DeLong noted an increase in flying birds near the water's edge at about 0100, perhaps of birds departing the island.

Two characteristic calls are given by the birds. One is rather musical and given primarily in flight as the birds presumably trace back and forth over the nest sites. Occasionally this call may be uttered by a bird within the nest cavity. The other call, which is a variable "twitter", is apparently only given from the nest chamber. This latter call may be continuous for many minutes. Tape recordings of both calls were made.

Nestsites were invariably in deep recesses under large boulders which rendered investigation impossible in most cases. The few (ca. five) which could be dug out were without eggs. In all burrows investigated, both birds were within the nest chamber. Occasional large boulders harbored more than one pair.

Specimens collected in the field either had bare or rapidly de-feathering brood patches, but egg laying had apparently not yet begun. Both Bent (Life Histories of North American Birds) and Palmer (Handbook of North American Birds) give 30 May as the earliest egg records.

A population estimate was not attempted on North Island since we only worked the cove area on the south side of the island at night. It is not known whether concentrations were equally distributed over the rest of the island.

Pelecanus occidentalis californicus

Brown Pelican

About 20 birds were observed feeding or flying about the cove on the south side. Immatures and adults were present in about equal numbers. Old nests were numerous along the high rocky area above the south cove, but none was active at this time. Two old nests were being utilized by Western Gulls.

Cormorants

Probably both Double-crested and Brandt's Cormorants were present. A few adult Double-crested Cormorants in breeding plumage were seen on North Island, but no evidence of nesting was noted there. Several large flocks (50+) were present on Center Island and a breeding population is likely present there.

Larus occidentalis wymani

Western Gull

This was probably the most numerous breeding species on the island (storm petrel numbers ??) with an estimated 10,000 birds. Nestsites were found over the island in all types of habitat. Considerable territorial fighting was noted and copulation between members of pairs was frequent. Several hundred new nest scrapes, semi-completed and completed nests were noted. About 50 nests were recorded with one egg, 20 nests with two eggs, and 10 with complete clutches of three eggs. This was not a complete island survey, but a survey restricted to the high central ridge and the south slope. No immature birds were seen about the island.

Larus philadelphia

Bonaparte's Gull

About 80-100 birds (both adults and immatures) were seen offshore North Island feeding with Western Gulls and a few Brown Pelicans.

Larus heermanni

Heermann's Gull

A few immatures were seen offshore on both North and Center Islands. One was noted chasing a Black Oystercatcher.

Endomychura hypoleuca

Xantus's Murrelet

Two separate pairs were seen on the water between North and Center Islands.

Oystercatchers

Approximately 12 black phase birds and 3-4 of the white-bellied form were observed about the island. Several pairs of blacks were noted and some territorial defense was noted between pairs on the south cove.

Numenius americanus

Long-billed Curlew

Two birds were noted about the island.

Heteroscelus incanum

Wandering Tattler

About six birds were seen about North Island and a few others along the shore on Center Island.

Phalaropes

About 20 Northern and 5-7 Red Phalaropes were observed feeding in the kelp beds between North and Center Islands. The reds were molting into breeding plumage.

LAND BIRDS

<u>Falco sparverius</u>	1 adult ♀	Sparrow Hawk
<u>Zenaidura macroura</u>	14+	Mourning Dove
<u>Archilochus alexandri</u>	1 adult ♂	Black-chinned Hummingbird
<u>Empidonax sp.?</u>	20+	Flycatchers
<u>Salpinctes obsoletus</u>	family group of 2 adults, 2 immatures	Rock Wren
<u>Wilsonia pusilla</u>	20+	Pileolated Warbler
<u>Pheucticus melanocephalus</u>	1 adult ♂	Black-headed Grosbeak
<u>Passerina amoena</u>	1 adult ♂, 1 adult ♀	Lazuli Bunting
<u>Carpodacus mexicanus</u>	9-12, ♂♂ singing	House Finch

Melospiza melodia

common

Song Sparrow

One nest was found with an infertile egg and a young bird about ready to leave the nest. This nest was completely lined with white breast feathers of the Western Gull. With the absence of hair, these island birds apparently utilize feathers in place of the universal hair nest lining of all mainland races. At least two other flying young were noted being attended by parent birds. In no case was more than one young present in any family group.

MAMMALSPhoca vitulina

Harbour Seal

One small two foot individual was photographed and released on North Island and 22 others were counted on Center Island.

Zalophus californicus

California Sea Lion

A count of 589 animals was made around both islands. Both bulls and cows were present, but no harem activities had as yet begun. One yearling was seen nursing.

Mus musculus

House mouse

Numerous on North Island during nocturnal hours; none was in evidence during the daylight survey.

Field SummaryLos Coronados Islands:

<u>species</u>	<u>#</u> <u>Banded</u>	<u>#</u> <u>Collected</u>	<u>#</u> Sera <u>Samples</u>	<u>#</u> <u>Returns</u>
Black Petrel	-	20	5	-

Preliminary Report
Eastern Area Cruise No. 38

Itinerary: 22 March 2030 Depart San Diego
24 March 0835 Arrive Pt. Ash
28 March 1030 Depart Grid between Points
Hemlock & Juniper
29 March 1100 Arrive San Diego

Personnel: Robert L. DeLong (Biologist in Charge)
Robert L. Brownell
Vernon M. Kleen

Survey Vessel: M.V. Sioux City

Methods

Diurnal observations were conducted from the open flying bridge. Excellent observations can be made from here and it is quite comfortable for the observers. Since the ship is also piloted from this bridge, the true and magnetic course as well as the ship's speed are available and can be used to determine flight direction of the birds and movements of the mammals. Nocturnal watches were not made. Weather conditions did not allow use of the Boston Whaler. No bird specimens were taken; however, one small cetacean was harpooned from the bow and collected.

Cruise Track

The Grid was followed reasonably well the first three days, but trouble with the ship and rough seas caused us to alter the course about midway between Points Elm and Fir. Due to continued problems the ship returned to San Diego. After variable changes of course (see Figure 1) we departed the Grid at 1030 hours on 28 March between Points Hemlock and Juniper.

Conditions

Weather was unfavorable during the first four days in the Grid with heavy northwest winds, rough seas and swells ranging to 15 feet. The skies were overcast with rain squalls in the distance. The ship averaged only 7-1/2 knots into the wind and up to 10 knots when moving with it. The sun appeared through the partially cloudy skies on the 28th and winds subsided. Fog set in during the night of the 28th and finally disappeared just before the ship arrived in San Diego.

Highlights

Near complete disappearance of Fulmars, Black-legged Kittiwakes, and Glaucous-winged Gulls.

Grid General

Except for the ship-followers and the storm petrels, few birds were seen. Black-footed Albatross, Herring Gulls and storm petrels comprise 173 of the 206 birds noted for a total of 84.4 percent of all birds recorded. A breakdown by species group indicates the following:

<u>Species</u>	<u>No. of sightings</u>	<u>% of total</u>
Albatrosses	40	19.5
Gulls	52	25.4
Storm Petrels	84	41.0
Shearwaters/Petrels	7	2.9
Fulmars	3	1.4
Phalaropes	9	4.4
Kittiwakes	1	0.5
Jaegers	1	0.5
Alcids	9	4.4
	<u>206</u>	<u>100.0</u>

Linear Density of Ship-Followers

R = .083	S = .457	T = .296	
U = ---	V = .272	W = .436	Overall = .286
X = ---	Y = ---	Z = ---	Adjusted = .201+

+ Adjusted total is actual number of ship-followers recorded, eliminating the duplicate counts for birds following from one section into the next.

Linear Density of Nonship-Followers

R = .217	S = .542	T = .092	
U = ---	V = .156	W = .236	Overall = .248
X = ---	Y = ---	Z = ---	

Number of Species Recorded in Each Section

R = 8	S = 9	T = 5
U = ---	V = 6	W = 6
X = ---	Y = ---	Z = ---

Number of miles covered in each section between sunrise and sunset

R = 120	S = 94	T = 98	
U = ---	V = 92	W = 55	Total: 459 miles
X = ---	Y = ---	Z = ---	

Miles/Section/Day (Diurnal hours)

R: 25 March = 120	S: 24 March = 76 26 March = 18	T: 24 March = 33 26 March = 65
U: (NONE)	V: 27 March = 92	W: 26 March = 30 28 March = 25
X: (NONE)	Y: (NONE)	Z: (NONE)

Species Account - GridBlack-footed Albatross (Diomedea Nigripes)

No. Obs.: 52

Adjusted: 39

R = 2 (.017)	S = 15 (.160)	T = 10 (.102)
U = ---	V = 13 (.141)	W = 12 (.218)
X = ---	Y = ---	Z = ---

Among the actual 39 individuals recorded, only three were recorded as white-rumped birds (no mottled-rump birds were recorded). These three white-rumped birds were recorded separately in sections S, T, and W. Although only section R is represented in the west for this trip, two-thirds and four-fifths as many miles were traversed here as compared with the central and eastern sections, respectively. Therefore, since only two Black-foots were recorded in R compared to 37 in the central and eastern sections, it appears that these birds are wandering around closer to the coast than has been reported in earlier surveys.

Laysan Albatross (Diomedea immutabilis)

No. Obs.: 1

This bird was recorded in section T and did not follow the ship.

Fulmar (Fulmarus glacialis)

No. Obs.: 3

All three birds were dark-phase individuals recorded in section W just prior to sunset. This low total, compared to other recent surveys, indicates that nearly all of the birds have migrated north already and only a few stragglers remain in the area.

Sooty Shearwater (Puffinus griseus)

No. Obs.: 4

R = 2 (.017)	S = 0	T = 0
U = ---	V = 1 (.011)	W = 1 (.018)
X = ---	Y = ---	Z = ---

Sooty Shearwaters have reappeared in the Grid, but are more numerous closer to the coast as seen by the non-Grid summary. The birds seen in the Grid were all recorded as moving northward. According to the locations of the individuals seen, the birds appear to be distributed throughout the entire Grid area at this time.

Pterodroma species

No. Obs.: 2

These birds were seen in section V on 27 March. These were probably Cook's Petrels (Pterodroma cookii)

Leach's Storm Petrel (Oceanodroma leucorhoa) No. Obs.: 59
 storm petrel sp. No. Obs.: 25

Leach's Storm Petrel storm petrel (sp)

R = 19 (.158)	S = 13 (.138)	T = 8 (.082)	R = 3 (.025)	S = 22 (.234)	T = 0
U = ---	V = 12 (.130)	W = 7 (.127)	U = ---	V = 0	W = 0
X = ---	Y = ---	Z = ---	X = ---	Y = ---	Z = ---

Combined :

R = 22 (.183)	S = 35 (.372)	T = 8 (.082)
U = ---	V = 12 (.130)	W = 7 (.127)
X = ---	Y = ---	Z = ---

Storm Petrels again appear to be moving into the northern sections of the Grid. It is not possible to predict the origin of these birds nor the trend of the species distribution in the grid. The concentration of birds in Section S is of interest and probably indicates the presence of an oceanographic front, i.e., upwelling, in the area. Densities in Section T are strikingly low. All birds classified to rump color were white-rumped birds.

Red Phalarope (Phalaropus fulicarius) No. Obs.: 3
 Phalarope species No. Obs.: 6

Red Phalarope phalarope (sp)

R = 1 (.008)	S = 2 (.023)	T = 0	R = 1 (.008)	S = 3 (.032)	T = 0
U = ---	V = 0	W = 0	U = ---	V = 0	W = 2 (.036)
X = ---	Y = ---	Z = ---	X = ---	Y = ---	Z = ---

Combined:

R = 2 (.016)	S = 5 (.055)	T = 0
U = ---	V = 0	W = 2 (.036)
X = ---	Y = ---	Z = ---

Nothing can be determined from the distribution shown here except that the birds are present throughout the Grid. On the calm days of 28 and 29 March, 20 birds were recorded outside of the Grid area as the ship returned to San Diego. Both within and outside the Grid, phalaropes were seen sitting on the water (but more so outside the Grid). Therefore, it is quite possible that many of these birds were missed in the Grid due to rough seas.

Pomarine Jaeger (Stercorarius pomarinus) No. Obs.: 1

Only one light-phase bird was seen. It was recorded in the eastern part of Section S on 24 March.

Glaucous-winged Gull (Larus glaucescens)

No. Obs.: 2

Both of these birds were immatures and were recorded separately in Sections R and V. The individual in R followed the ship for about three hours, but the one recorded in V followed only a few minutes. Since 17 and 13 individuals were recorded in EGS 18 and 20, respectively, it indicates that most of these gulls have now departed. Since no adults of this species have ever been recorded in the Grid, it cannot be said that these birds are migrating north for breeding.

Herring Gull (Larus argentatus)

No. Obs.: 76
Adjusted: 50

R = 7 (.058)	S = 28 (.298)	T = 18 (.184)
U = ---	V = 11 (.120)	W = 12 (.218)
X = ---	Y = ---	Z = ---

Of the 50 individuals (adjusted total) recorded, the birds were classified by the following age classes: Adults - 27 (54.0 percent), Sub-adults - 4 (8.0 percent) (with plumage near that of adults, but dark mottling occurring around the neck and nape and also dark spots in tail feathers for some birds), and Immatures - 19 (38.0 percent). Hardly any daylight passed without at least one of these birds within sight of the ship. The lowest number recorded was in Section R, the farthest from land, which is quite the reverse from the last two surveys (EGS 19 and 20) where this section had the highest totals for each of the respective trips.

Black-legged Kittiwake (Rissa tridactyla)

No. Obs.: 1

A single immature bird was seen in Section T on 26 March and followed the ship for over an hour. This lone sighting indicates that the birds have migrated northward toward breeding grounds and that only stragglers remain in the Grid.

Alcids

All nine individuals were recorded on 24 March in Section S. None of the birds were identified to species.

Species	Miles	R	S	T	U	V	W	X	Y	Z	Raw Total	Adjusted Total		
Red Phalarope	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$	# Obs. $\frac{\text{Birds}}{\text{mile}}$		
Black Phalarope	2	.017	15	.160	10	.102	13	.141	12	.218	52	.113	39	.057
Black Phalarope	7	.056	28	.298	18	.184	11	.120	12	.218	76	.166	56	.109
Black Phalarope	1	.008					1	.011			2	.004	2	.004
Black Phalarope	10	.083	43	.457	29	.296	25	.272	24	.436	131	.286	92	.201
Black Phalarope	2	.017				1	.011	1	.018		4	.009		
Black Phalarope	19	.158	13	.138	8	.082	12	.130	7	.127	59	.128		
Black Phalarope	3	.025	22	.234							25	.054		
Black Phalarope	1	.008	2	.023							3	.007		
Black Phalarope	1	.008	3	.032			2	.036			6	.013		
Black Phalarope			1	.011							1	.002		
Black Phalarope					1	.010					1	.002		
Black Phalarope	9	.096									9	.020		
Black Phalarope	26	.211	51	.542	9	.092	15	.156	13	.236	114	.248	114	.248
Black Phalarope	36	.300	94	1.000	38	.388	40	.416	37	.673	245	.534	206	.443
Total Miles	120		94	98		92	55				459			

*Adjusted total is actual number of ship-followers recorded, eliminating the duplicate counts for birds following from one section to the next.

*Adjusted total is actual number of ship-followers recorded, eliminating the duplicate counts for birds following from one section to the next.

Table . Abundance and density by species; East-West breakdown, EGS 21

<u>Ship-followers</u>	<u>EAST</u>	<u>CENTRAL</u>	<u>WEST*</u>	
Black-footed Albatross	22 (.144)	28 (.151)	2 (.017)	
Laysan Albatross	1 (.007)	0	0	
Herring Gull	30 (.196)	39 (.210)	7 (.058)	
Glaucous-winged Gull	0	1 (.005)	1 (.008)	
Totals	53 (.346)	68 (.366)	10 (.083)	= 131 (.286)
<u>Non-followers</u>				
Sooty Shearwater	1 (.007)	1 (.005)	2 (.017)	
<u>Pterodroma</u> species	0	2 (.011)	0	
Fulmar	3 (.020)	0	0	
shearwater/petrel	0	1 (.005)	0	
white-rumped storm petrel	15 (.098)	25 (.135)	19 (.158)	
storm petrel sp.	0	22 (.118)	3 (.025)	
Red Phalarope	0	2 (.011)	1 (.008)	
phalarope sp.	2 (.013)	3 (.016)	1 (.008)	
Pomarine Jaeger	0	1 (.005)	0	
Black-legged Kittiwake	1 (.007)	0	0	
alcid species	0	9 (.048)	0	
Totals	22 (.144)	66 (.355)	26 (.217)	= 114 (.248)
Grand Totals	75 (.490)	134 (.721)	36 (.300)	= 245 (.534)
Miles	153	186	120	= 459

*Section R is the only western section covered.

EASTERN PACIFIC OCEAN

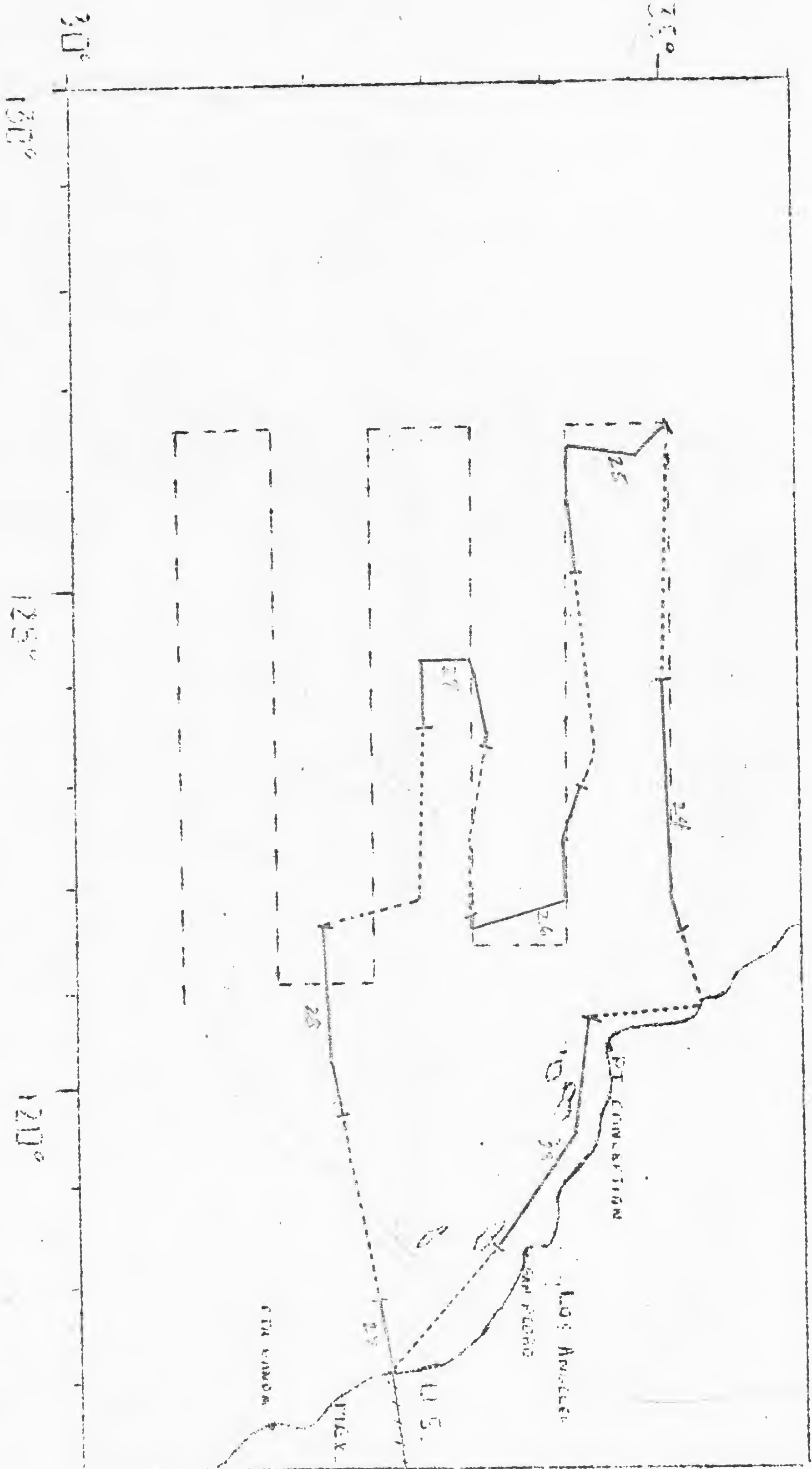


Figure 1.

EAC #38; EGS #21 22-29 March 1968

..... Nocturnal
 ----- Diurnal

Non-Grid Summary

On 23 March the ship passed between the coast and channel islands and observations were made only for short periods throughout the day. No observations were made during the two hours of daylight before reaching Pt. Ash on 24 March. After leaving the Grid at 1030 hours on 28 March, observations were continued until sunset and again from sunrise to 1000 hours on 29 March when we approached the San Diego port. Since observations were not complete for all daylight hours of non-Grid sections, only total birds seen each day have been included in the following table.

<u>Species</u>	<u>23 March</u> <u>0630-1830</u>	<u>28 March</u> <u>1030-1830</u>	<u>29 March</u> <u>0600-1000</u>	<u>Total</u>
loon species	2	-	-	2
Pink-footed Shearwater	-	-	5	5
Sooty Shearwater	-	4	6	10
cormorant species	4	-	-	4
Black Brant	-	-	400*	400
Red Phalarope	-	3	17	20
shorebird species	-	-	1	1
Pomarine Jaeger	-	-	2	2
jaeger species	-	1	6	7
Western Gull	15	-	14	29
Herring Gull	1	-	14	15
California Gull	3	-	-	3
Bonaparte Gull	-	-	61	61
gull species	125	-	-	125
alcid species	1	-	-	1
Mourning Dove	-	-	1*	1
Allen Hummingbird	-	-	1*	1
hummingbird species	-	-	2	2
swallow species	-	-	3	3
warbler species	-	-	1	1
bird species	1	-	-	1
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Totals	152	8	534	694
Miles	123	63	31	217

*The Brant were recorded sitting in the water at 0755 (about 16 miles from shore), the Mourning Dove at 0655 (about 25 miles from shore), and the Allen Hummingbird at 0815 (about 13 miles from shore).

MARINE MAMMAL OBSERVATIONS
EAC 38

Observations of marine mammals during this partial Eastern Grid Survey (northern half) were few. Only two species of cetaceans and one or possibly two species of pinnipeds were logged.

The cetaceans consisted of two groups of 6-9 Killer Whales (Orcinus orca) and two small groups of ca. 12 of Common Dolphins (Delphinus sp.). The latter were of interest as they were the offshore type we have noted with dorsal fins colored differently from the usually more inshore Delphinus. The only other locality where this offshore form occurs is in Japanese waters. We are currently corresponding with Japanese cetologists about the color forms and distribution of this genus in Japanese waters.

Pinnipeds recorded were even fewer than the meagre assemblage of cetaceans in the Grid.

The Northern Fur Seal (Callorhinus ursinus) was observed on five different occasions. Four of these observations were of single animals, with one sighting of two recorded. Another fur seal noted was possibly the Guadalupe Fur Seal (Arctocephalus townsendi). Two seal species and four eared seals were all single observations except for one sighting of two.

Weather and sea conditions were such that marine mammals had to be relatively close to the ship to be seen. Large Baleen and Sperm Whales which have been sighted in the Grid throughout the year were not noted (possibly due to sea conditions).

GRID MARINE MAMMAL OBSERVATIONS

24 March 1968

1045	eared seal - 2, probably Northern Fur Seal
1403	seal sp. - 1
1426	seal sp. - 1
1443	eared seal - 1, probably Northern Fur Seal
1458	eared seal - 1, probably Northern Fur Seal
1745	Killer Whale - 6-9

These Orcinus were in three groups with at least two per pod. Each group had one large male (ca. 25 ft.).

25 March 1968

No marine mammals were noted today.

26 March 1968

1410 Northern Fur Seal - 1

1530 Common Dolphin - ca. 12

All of these Delphinus were the type with the white triangular mark on the dorsal fin. None of these dolphins rode the bow as they crossed the bow of the ship.

1655 Northern Fur Seal - 2

1725 Northern Fur Seal - 1

1726 Northern Fur Seal - 1

1750 Northern Fur Seal - 1

27 March 1968

1430 Fur Seal - 1

A fur seal was noted that was probably Arctocephalus and not Callorhinus.

SUMMARY OF THE NON-GRID MARINE
MAMMAL OBSERVATIONS - EAC 38

Observations and data recorded for marine mammals during the non-Grid part of Eastern Area Cruise 38 were possibly the most significant of all non-Grid observations. These observations are also pertinent to our understanding of some of the marine mammals of the Grid study area. Six species of cetaceans and three species of pinnipeds were recorded. The following is an outline of these observations.

Eight sightings of Dall Porpoise (Phocoenoides dalli) that totalled some 44 to 46 porpoise. Seven of the observed pods were of porpoise traveling. The other sighting was of a group milling about the surface and diving, probably for food.

Three to five gray whales were recorded. One single whale was noted migrating north. The other two whales were observed inside Pt. Conception probably nursing calves. Sea conditions and the distance these whales were from the ship prevented us from determining the positive presence of the calves.

Two schools of Common Dolphins (Delphinus sp.) were observed in close proximity. One group of dolphins had solid dark dorsal fins, while animals in the other group had grayish patches in their dorsal fins. The dolphins of the latter school were aberrantly colored with a large patch of "white" posterior to the dorsal fin on both sides of the dorsal flanks. A third group of Delphinus was noted mixed with Pacific Striped Dolphins (Lagenorhynchus obliquidens). This mixed group was also associated with a school of approximately 500 Northern Right-whale Dolphins (Lissodelphis borealis) and about 100 Risso Dolphins (Grampus griseus). Two specimens of Lissodelphis were killed but only one carcass was recovered. Blood samples and stomach contents were collected from the specimen.

These four species were probably associated in the same area because of one or more food species. Lissodelphis have not previously been recorded this far south ($32^{\circ}15'$), but based on what is known of its zoography one would expect to find Lissodelphis in this area. Both Grampus and Lissodelphis have been observed regularly in the eastern Grid and non-Grid areas. Many of these animals are probably the same ones we have seen on previous surveys. The southern movements of these two species (Lissodelphis and Grampus) are probably related to hydrographic conditions which caused their food species to move south. These species do not utilize the same food species. Both of these dolphins probably range relatively little north or south of the area offshore of Pt. Conception.

Shortly after the above group of dolphins was observed, a school of approximately 100 Lagenorhynchus was noted some distance from the ship. This species was also observed just out from Pt. Loma the day we arrived in San Diego.

Observations of pinnipeds were few. Three observations of single Northern Fur Seals (Callorhinus ursinus) were recorded. These records are of interest because Scheffer (1958) reported this species in the winter and spring to range as far south as waters off San Diego, California ($32^{\circ}40'$ S). Our observations are somewhat to the south ($32^{\circ}15'$).

Two Steller Sea lions (Eumetopias jubata) were recorded floating together on their backs, exhibiting resting behavior very similar to that of Callorhinus. This species has previously been observed only as far south as San Nicholas Island ($33^{\circ}+$).

Two observations of single California Sea lions (Zacophus californiacus) were made without comment in the northern non-Grid area.

Table of Non-Grid Marine Mammals

<u>Species</u>	<u>Number</u>	<u>Section</u>
Dall Porpoise	44-46	N
Gray Whale	3-5	N
Pacific Striped Dolphin	177	S
Common Dolphin	165	S
Risso Dolphin	100	S
Northern Fur Seal	3	S
Steller Sea Lion	2	S
California Sea Lion	2	N
Right-whale Dolphin	500	S

NON-GRID MARINE MAMMAL OBSERVATIONS

23 March 1968

1130 Dall Porpoise

Phocoenoides dalli

10-12 animals were riding the bow, with another 4-6 porpoise in the area. The dorsal fins of these porpoise were much whiter than average. One dorsal fin was noted with 60-70 percent of its area white. The grayish color on the dorsal posterior edge was the same on all noted. These porpoise stayed with the ship for approximately 20 minutes.

1300 Sea Lion

Zalophus californicus

One small animal was observed.

1345 Sea Lion

Zalophus californicus

One sea lion was noted with a piece of kelp.

1346 Dall Porpoise

Phocoenoides dalli

Three porpoise of this species were first noted diving. All came toward the ship's bow, but swam on without riding the bow.

1352 Dall Porpoise

Phocoenoides dalli

Another three porpoise approached the ship but did not ride the bow.

1404 Dall Porpoise

Phocoenoides dalli

Five Dalls were noted traveling to the southwest.

1417 Two Dall porpoise were sighted moving to the northeast.

1422 Two additional Dalls were noted moving to the northeast.

1457 A group of 9± Dall porpoise were noted moving to the east.

1640 A pod of 10 Dall porpoise was recorded without note.

1650 One Gray Whale was noted migrating north. (Eschrichtius gibbosus)

- 1740- Two Gray Whale which were probably nursing their
 1800 calves were observed inside Pt. Conception. Both
 whales were noted in stationary positions. Each
 would breathe three or four times on the surface,
 then roll over on their sides. In this position
 the flipper and sometimes the flukes showed... The
 distance between us and the whales prevented us
 from noting any young.

28 March 1968

- 1115 Eumetopias - 2 Steller sea lions

Both were floating on their backs with one front
 flipper and both rear flippers out of the water.

- 1205 Callorhinus - 1 Northern Fur Seal

- 1245 Callorhinus - 1 Northern Fur Seal

- 1515 Delphinus - ca. 50 Common Dolphins

Maximum of ca. 12 were riding the bow at any given
 time. All appeared about the same size (adults).
 One large specimen (girth) was noted to be probably
 pregnant. Some of these dolphins had the grayish
 patches in the dorsals. DeLong and Brownell attempted
 to collect specimens but were unsuccessful.

- 1517 Callorhinus - 1 Northern Fur Seal

- 1540 Delphinus - ca. 40 Common Dolphins

Dolphins were noted of various sizes, usually young
 and adults. All dorsal fins noted were dark in
 color. All other body colors appeared darker than
 other Delphinus we have noted. One outstanding
 dolphin was noted with a large patch of "white"
 posterior to the dorsal and one-third of the way
 down the side. Brownell attempted to collect the
 above dolphin without any luck.

- 1517- Callorhinus -
 1555

- 1540- Several large groups of smaller cetaceans were noted.
 1606 As we approached, three groups were distinguished:
 first, dolphins jumping clear as they moved along;
 second, dark animals, whitish underside, jumping
 like Tursiops straight up out of the water, falling
 back into the water on their sides; third, large
 dorsal fins like female Orcinus.

The first group noted was a group of ca. 150 mixed dolphins (Lagenorhynchus and Delphinus). These were not followed and were swimming away from the others.

The second group noted was a widely dispersed school of ca. 500 Lissodelphis. These dolphins were divided into numerous subgroups of 10 to 30 specimens. Numerous different dolphins were noted jumping up off of the water, as stated above. No young were observed. Numerous different subgroups would ride the bow. DeLong shot (c 00 shot) and instantly killed one riding the bow. It floated a couple of minutes, then sank. DeLong then harpooned a specimen which was then brought on board. (Killed at ca. 1620).

Chased animals again. They did not ride bow again, but started swimming fast and coming out of the water together. On several occasions dolphins were noted to slap the fluke on the surface of the water before diving.

The third group noted was pod of ca. 100 Grampus. These dolphins also were divided into many subgroups. Numerous small (newborn) were observed. These were very gray in color (cf. Tursiops truncatus). Many of the large animals were in groups with only their heads, dorsal surfaces, and dorsal fins. The other animals were blackish in color as Globicephala. Animals were generally milling about the surface thus allowing us to study their heads, colorations, and sizes. None of the Grampus rode the bow, but several different groups approached within 100 to 200 feet of the ship.

1715 Lagenorhynchus - Pacific striped dolphin ca. 100
These were noted some distance from the ship.

29 March 1968

0950 Pacific Striped Dolphins - 2 (Lagenorhynchus obliquidens)

Two large dolphins of this species were observed ca. one mile off Pt. Loma. The dorsal fins on both animals were greatly recurved. This is commonly observed in older dolphins of this species (Brown and Norris, 1956).

PRELIMINARY REPORT

EASTERN AREA CRUISE NO.39

April 3-10, 1968

Pelagic Observations (including second part of
Eastern Grid Survey No. 21) prepared by V. Kleen

Marine Mammal Section prepared by R. Brownell

Santa Barbara Island, Anacapa Island, and Ship Survey
of Santa Cruz, Santa Rosa and San Miguel, prepared
by J. Church

San Nicolas Island prepared by R. DeLong

Itinerary:

April 3 - 2315 Depart San Diego
4 - 1130 Arrive Santa Barbara Island
5 - 0800 Depart Santa Barbara Island
1205 Arrive Anacapa Island
1700 Depart Anacapa Island
1750 Anchor at Santa Cruz Island
April 6 - 0720-1700 Ship survey of Santa Cruz, Santa Rosa and
San Miguel (including Prince Islet)
April 7 - 0910 Depart Santa Cruz Island
1345 Arrive San Nicolas Island to pick up DeLong
1445 Depart San Nicolas Island
April 8 - 1300 Enter Eastern Grid (section W)
1832 Sunset - end of observations in Grid (section W)
April 10- 0515 Arrive San Diego

Personnel: R.L. DeLong (BIC)(joined at San Nicolas April 7)
R.L. Brownell
J.P. Church
V.N. Kleen

Survey Vessel: M/V SIOUX CITY

Methods: Diurnal pelagic observations were maintained enroute to Santa Barbara, between Santa Barbara and Anacapa, enroute from Santa Cruz to San Nicolas, and after departing San Nicolas until sunset April 9. Landings were made on Santa Barbara and Anacapa. Santa Cruz, Santa Rosa and San Miguel were surveyed from the ship, but the planned landing at Prince Islet, San Miguel, was prevented by high wind and rough sea. DeLong surveyed pinnipeds on San Nicolas April 5-7 prior to boarding the SIOUX CITY. Mechanical troubles on the vessel restricted observations in the Grid to a few hours during the afternoon of April 8.

Weather and Sea Conditions: Weather was calm during the island visits, except near Prince Islet, San Miguel on April 6 where rough sea and 30-knot wind did not permit a landing. Remaining days at sea were calm.

PELAGIC OBSERVATIONS

Grid Observations(supplement to Eastern Grid Survey No.21): Observations were limited to 5-1/2 hours on April 8 from 1400 to sunset at 1832. All birds were seen in section W.

White-rumped Storm Petrel	3
Red Phalarope	3
Herring Gull	<u>2</u>
Total	8

Total miles 55

Non-grid Observations.

Observations were conducted on April 4 from surveys until arrival at Santa Barbara. On 5 April, we left Santa Barbara at 0800 and ran observations from 0895 to 1100 when we arrived at Anacapa Island. The ship left the anchorage at Santa Cruz Island on 7 April at 0900 and observations were continued throughout the day except for 1 hour when we were in the vicinity of San Nicolas Island. On 8 April, observations were made only between 1300 and 1832 while in the grid. Observations were made all day on 9 April. The ship returned to port before sunup on 10 April.

Species:	4 April (4 hrs)	5 April (3 hrs)	7 April (8 hrs)	9 April (11 hrs)	Total (26 hrs)
loon sp.	1	-	8	-	9
Black-footed Albatross	-	-	1	4	5
Pink-footed Shearwater	4	-	58	14	76
Sooty Shearwater	69	16	712	1064	1861
shearwater sp.	-	-	5	212	217
White-rumped Storm Petrel	-	-	13	3	16
storm petrel sp.	-	-	67	-	67
Brown Pelican	-	4	4	-	8
Brandt's Cormorant	-	-	2	-	2
cormorant sp.	-	2	57	-	59
duck sp.	-	-	-	2	2
Red Phalarope	3	-	14	1	18
phalarope sp.	2	-	17	8	27
Pomarine Jaeger	4	-	5	40	49
Jaeger sp.	14	-	14	6	34
Western Gull	37	2	71	6	116
Herring Gull	14	3	16	6	37
California Gull	4	-	-	-	4
Ring-bill Gull	1	-	-	-	1
Bonaparte's Gull	12	6	10	-	28
Black-legged Kittiwake	1	-	-	-	1
Sabine's Gull	-	-	1	5	6
gull sp.	113	28	16	9	166
Xantus Murrelet	2	2	-	-	4
Rhinoceros Auklet	-	-	18	5	23
alcid sp.	6	-	34	-	40

Species:	4 April (4 hrs)	5 April (3 hrs)	7 April (8 hrs)	9 April (11 hrs)	Total (26 hrs)
seabird sp.	-	1	4	-	5
hummingbird sp.	-	-	-	1	1
Lincoln's Sparrow	-	-	-	1	1
songbird sp.	-	-	-	3	3
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	287	64	1147	1390	2888

MARINE MAMMALS

- 4 April 1968 - 0655: Three unidentified cetaceans were noted traveling in a northwestern direction.
- 0805: A pod of at least 12 Pilot Whales was observed some distance from the ship slowly moving to the west.
- 0901: A dispersed group of approximately 20 Common Dolphins was noted slowly milling about. These dolphins were probably feeding.
- 0940: Three California Sealions were associated with kelp.
- 0959: Two California Sealions were noted.
- 1010: Two additional California Sealions were noted.
- 5 & 6 April - No marine mammals were observed.
- 7 April - 1116: One California Sealion was noted.
- 1135: One Dall Porpoise was observed probably feeding.
- 1140: Three or more Dall Porpoises were noted moving northwest. These animals were probably feeding.
- 1147: Five or more Dall Porpoises were noted behaving as the above; white color of dorsal fins was less than normal.
- 1212: Approximately 250 small delphinids were observed some distance from the ship. These may have been Right Whale Dolphins.
- 1214: Two Dall Porpoises were observed, probably feeding.
- 1225: One California Sealion was observed.
- 1242: Three plus mammal species were noted.
- 1310: Four mammal species were sighted.

- 7 April 1968 - 1335: Two California Sealions were observed.
- 1342: At least ten California Sealions were observed "porpoising" away from the ship.
- 1502: Two California Sealions were sighted.
- 1508: Two additional California Sealions were noted.
- 1618: Another two California Sealions were observed.
One Elephant Seal was sighted.
- 1639: One Eared Seal was noted.
- 1700: One Northern Fur Seal was observed.
- 1746: About 15 small delphinids (Delphinus and possibly some lagenorhynchus) were observed some distance from the ship.
- 1800: One large Baleen Whale (Fin/Sei/or Blue) was observed traveling east.
- 1810: One, probably female, Northern Fur Seal was noted.
- 1826: One pup or yearling Northern Fur Seal was sighted.
- 8 April 1968 -
Grid No marine mammals were noted during the short stay in the grid study area.
- 9 April 1968 - 0805: One "seal" was observed lying on its back with both hind flippers out of the water.
- 0902: One small delphinid was observed.
- 0934: About 50 Common Dolphins divided into several subgroups were milling back and forth through a feeding flock of shearwaters. The dolphins were also probably feeding. No coloration was noted on the dorsal fins.
- One Northern Fur Seal with two other Eared Seals were noted in the distance.
- 0950: Approximately 25 Pacific Striped Dolphins were observed, probably feeding with a flock of Sooty Shearwaters. Some juvenile dolphins were observed.
- 1025: About 10 Common Dolphins were noted.
- 1115: Two California Sealions were observed.
- 1120: One Killer Whale (ca. 15-20 feet total length) was noted moving towards the northwest.

9 April 1968 (cont'd)

- 1140: About 15 Common Dolphins were observed traveling to the northwest.
- 1150: About 15 small delphinids probably Pacific Striped Dolphins were noted milling about the surface with a mixed feeding flock of birds. One dolphin was noted jumping in circles.
- 1226: One young (ca. 4 years) Elephant Seal was observed.
- 1240: One California Sealion was observed associated with kelp (*Nereocystis*) floating on back with one fore and hind flipper exposed.
- 1246: Two California Sealions, not associated, were observed. One was swimming and one was floating belly down with its tail in the air.
- 1335: Two Little Piked Whales were observed. Probably a cow and calf that were traveling in a northward direction. The large whale had a whitish flare on its left lateral side.
- 1355: Two California Sealions were noted.

Santa Barbara Island

April 4-5, 1968

Brownell, Church and Kleen landed on Santa Barbara. All three made separate diurnal surveys which covered the entire island and Kleen made a nocturnal survey which covered most of it. The vegetation appeared to be fairly lush with grass covering most areas. There were dry areas where ground cover was a dense mat of dried runners and faded bloom from a six-inch high broad-leafed succulent. Yarrow and giant coreopsis were in bloom. There were a few "plateau" areas where the sandy soil was bare. Whether this is a natural condition or a result of utilization by roosting Western Gulls is unknown.

The island has high cliffs around almost the entire perimeter. The only easy landing area is on the northeast side where there is a loading platform and the remains of a rail line leading up a steep incline to two abandoned quonset huts where the field party slept. No collections were made except for one rodent skull.

On the approach to Santa Barbara on 4 April, after observations for ADP were closed because of proximity to the island, the following birds were observed: 40 Brown Pelicans sitting on the rocky slope of the south-east end of the island; 6 cormorant sp. plus 1 Pelagic Cormorant; 1 female Bufflehead; 2 male Surf Scoters; 3 Black Oystercatchers; 4 Western Gulls, 2 Pigeon Guillemots flying north. On 5 April 3 Xantus Murrelets, 4 Sooty Shearwaters and 1 Royal Tern were observed from the ship.

SPECIES ACCOUNTS

Podiceps caspicus (5)

Eared Grebe

Pelecanus occidentalis (37)

Kleen found 4 adults and 33 immatures and counted 17 old nests. No new nests were found nor was any breeding activity noted.

Phalacrocorax penicillatus (4)

Brandt's Cormorant

Kleen identified 4 Brandt's.

Phalacrocorax sp. (127)

Cormorant sp.

One hundred and twenty-seven unidentified cormorants were seen resting in two areas.

Bucephala albeola (1)

Bufflehead

One female seen in water.

Melanitta perspicillata (30)

Surf Scoter

Kleen saw 30.

Santa Barbara (cont'd)

Falco sparverius (1)

Sparrow Hawk

Mergus serrator (1)

Red-breasted Merganser

One male seen by Kleen.

Haematopus bachmani (8)

Black Oystercatcher

Squatarola squatarola (1)

Black-bellied Plover

One in winter plumage seen by Kleen.

Heteroscelus incanum (7)

Wandering Tattler

Catoptrophorus semipalmatus (2)

Willet

Arenaria interpres (7)

Ruddy Turnstone

Larus occidentalis (2,500)

Western Gull

Western Gulls were roosting on both plateaus as well as on several fairly precipitous inclines. Only two pairs were seen, however, indicating that hardly any breeding activity has started.

Larus argentatus (2)

Herring Gull

Cephus columba (2)

Pigeon Guillemot

Tyto alba (2)

Barn Owl

Kleen found two on his nocturnal survey.

Speotyto cunicularia (4)

Burrowing Owl

Megaceryle alcyon (1)

Belted Kingfisher

Colaptes cafer (1)

Red-shafted Flicker

Eremophila alpestris (73)

Horned Lark

A common bird which was singing and paired. Kleen found one nest with three eggs.

Troglodytes aedon (1)

House Wren

Salpinctes obsoletus (2)

Rock Wren

Regulus calendula (2)

Ruby-crowned Kinglet

Passer domesticus (5)

House Sparrow

Sturnella neglecta (100+)

Western Meadowlark

The most common landbird on the island. Males were singing both by

Santa Barbara (cont'd)

day and night. One was seen carrying what appeared to be a large insect.

Zonotrichia leucophrys (8) White-crowned Sparrow

Passerculus sandwichensis (1) Savannah Sparrow

Melospiza lincolni (2) Lincoln's Sparrow

MAMMALS

Mouse holes and runs were plentiful on the island. Church saw one unidentified mouse in one of the quonset huts. Brownell collected one unidentified rodent skull and Kleen saw one rabbit, also in the quonset hut.

Calophus californianus (1,000+) California Sealion

This species was observed hauled out on three different localities. Some 320 animals were noted on the beach south of the landing. Over 200 were hauled out below the steep cliffs on the southwest side across from Sutil Island. Over 100 sealions occupied the northwestern point. Three dead Zalophus were noted on the beach south of the landing and one dead female (total body length ca. 250 in) was found on the northwest point. The total populations of the species must be well over 1,000 animals.

Anacapa

April 5, 1968

Anacapa has three main islands, East, Middle, and West with several rock islets off each. Kleen and Church made the land survey. With the exception of a colony of Brown Pelicans, few marine birds appeared to be using West Island where we landed. It was impossible to reach the sloping areas of the north side of the island because they terminated in cliffs which could not be climbed. The South side of the island was unscalable and the only bird observations made were from the rocky shore which extended its full length. Banks (1966) must have been able to get ashore further west than our landing as he mentions tree-filled arroyos. None of these was seen. The ground in places was fairly damp, indicating recent precipitation. The giant coreopsis, (Coreopsis maritima) was in full bloom as were succulents, a plant which resembles Indian Paint Brush, a lavender-colored flower of the daisy family, and a yellow-flowered low-growing dense ground cover. Abalone shells were common on the beaches.

While Church and Kleen were on the island the ship cruised offshore. Brownell saw 750 - 1000 Surf Scotors.

Bird Species

Pelecanus occidentalis (200+) Brown Pelican

This was the only species which appeared to be nesting. Unfortunately, we were unable either to reach the colony or to see it well enough to make a positive count of nests. Church thought she saw downy young. The colony is in two sections, one above and east of the other. The upper segment

Anacapa (cont'd)

appeared to be the larger. Many adults were in the air and in the water on the north side of the island at all times. None was seen carrying nesting material (a possible indication that nesting is well underway ??). Three pairs of birds were seen soaring together over the island.

Podiceps caspicus (1)

Eared Grebe

Church found the feathered remains of one of this species on the beach.

Phalacrocorax penicillatus

Brandt's Cormorant

Four seen flying at East Island.

Phalacrocorax sp. (80+)

Cormorant sp.

On the approach to East Island, 45 were sitting on high rocks. Thirty-five more were seen sitting further along on the north side of East Island. None was seen on Middle Island but the westernmost isolated rock islet beyond West Island also had about 40 sitting. Numbers could not be determined with accuracy because of glare and distance.

Falco sparverius (2)

Sparrow Hawk

A male and a female were seen in separate sightings on West Island.

Haematopus bachmani (6)

Black Oystercatcher

Five were seen on rocks on the south side of the island and one on the north side.

Arenaria melanocephala (1)

Black Turnstone

Kleen saw one on the north side of the island.

Arenaria interpres (1)

Ruddy Turnstone

One seen. This is apparently the first record for the island (C Banks, 1966).

Actitis macularia (2)

Spotted Sandpiper

One on the north side and one on the south side.

Heteroscelus incanum (3)

Wandering Tattler

Three seen.

Larus philadelphia (400)

Bonaparte's Gull

About 400 Bonaparte's Gulls were in a disturbed water area at the east end of East Island.

Anacapa (cont'd)

Melanitta perspicillata (300+)

Surf Scoter

At least 300 Surf Scoters were resting on the water on the north side of Middle Island.

Melanitta deglandi (4)

White-winged Scoter

Four White-winged Scoters were with the 300+ Surf Scoters at Middle Island.

Larus occidentalis (750)

Western Gull

About 400 Western Gulls were resting on the water on the north side of Middle Island with an additional 300 roosting on the slopes above the cliffs, also on the north side. No pair bonds appeared to be established on this island but two pairs were seen on high outcroppings above the cliffs on the south side of West Island. About 80 azygous birds were seen on this side.

This species is the only abundant species on the island.

Alcid sp.

Eleven alcids, probably Xantus' Murrelets, were seen by Church flying up from the water on the passage between Anacapa and Santa Cruz.

Landbirds

Four White-throated Swifts (Aeronautes saxatalis), one Rock Wren carrying a large insect, and one passerine species were observed on West Island.

Mammals

Three Harbor Seals (Phocavitulina) were close inshore on the south side of West Island.

Ship Survey of Santa Cruz, Santa Rosa, and San Miguel Islands.

On 6 April we cruised from our anchorage on the southeast end of Santa Cruz along the entire southern side of the island past Santa Rosa Island, then through the channel between Santa Rosa and San Miguel to Prince Islet on the north side of San Miguel where we had expected to put ashore. The water was too rough, however, and we returned along the north coast of Santa Cruz, to the anchorage of the night before, a distance of about 40 miles. One area (near the Western Offshore Oil Company Floating Tower) was very rich in bird life and we retraced our track through it in order to verify identification of the several alcid species.

On the south side of Santa Cruz, we observed the following: 3 loon sp., Sooty Shearwaters, 12 Brown Pelicans, 2 Brandt's Cormorants, 47

Ship Survey of Santa Cruz, Santa Rosa, and San Miguel Islands (cont'd)

Surf Scoters, 9 Red Phalaropes, 45+ Western Gulls, Herring Gulls, 600 Bonaparte's Gulls, 1 Pigeon Guillemot in winter plumage, a Xantus Murrelet and 6 alcid sp.

Off Santa Rosa over 300 Sooty Shearwaters passed in a steady stream. There were sightings of a Brandt's Cormorant, 9 Red Phalaropes, Western and Herring Gulls, 8 Bonaparte's Gulls and 1 Pigeon Guillemot.

Approaching San Miguel, Sooty Shearwaters streamed by with over 1,000 counted. Three Black-footed Albatross, 6 Pelagic Cormorants, 10 Pigeon Guillemots, and 2 unidentified jaegers.

Prince Islet, San Miguel, supported at least 800 cormorants and 250 Western Gulls.

On the return trip to the Santa Cruz anchorage, we cruised the north side of Santa Rosa and Santa Cruz where over 5,000 Sooty Shearwaters were counted. Additional species:

Brandt's Cormorant	6
Cormorant Species	4
Pelagic Cormorant	16
Red Phalarope	23
Common Murre (winter plumage)	1
Pigeon Guillemot	30
Rhinoceros Auklet	79
Cassin's Auklet	19
Xantus Murrelet	16
Western Gull	32
California Gull	2
Ring-billed Gull	2
Bonaparte's Gull	1
Hummingbird Species	1

Two ravens were seen at the Santa Cruz anchorage on the following morning and a mockingbird was heard singing.

San Nicolas Island

5 - 7 April 1968

Itinerary:

Arrive: San Nicolas Island 1630 5 April, via Mercer Airlines.

Depart: San Nicolas Island 1430 7 April, via M/V Sioux City.

Introduction:

The short stay on the island was devoted to work on two animals, the Western Gull (Larus occidentalis) and Northern Elephant Seals (Mirounga angustirostris). The gulls are of interest as we will later do a complete study on their ecology, and the Mirounga were surveyed in order to obtain data on the success of the tagging of this species on 4-5 March this year. Accounts follow:

San Nicolas Island (contd)

Larus occidentalis ca. 3,500

The numbers of this species have increased from the estimated 2,000 birds on the island on 5 March. The birds continue to defend territories. There are a small percentage (less than 10 percent) of the birds that are now paired. In three hours of observation, only one bird was seen to demonstrate any "breeding/nesting behavior". The animal was tearing vegetation from the ground, but it did nothing further with the vegetation after it had been broken loose. This may have been an effort to clear an area for a "scrape" in which to place the nest as the nests of this bird are generally in scrapes with only a small amount of nest material.

On 5 and 6 April the birds were present on the territories. But on the morning of 7 April all but a few of the birds had departed the island. This behavior is apparently normal for gulls in early stages of the breeding cycle.

Numenius americanus (Long-billed Curlew)

While observing the Western Gulls on the west-northwest end of the island, one curlew continually circled over my head, calling loudly. The bird was seen in the same area on two different days, and, although they are not recorded as breeding on the island, I believe this bird was on territory.

Mirounga angustirostris

Predictably, the age structure of the San Nicolas population has changed since the March visit to the island. There are now no adult males and few adult females on the island. The yearlings which were in low numbers during the last visit have returned to the island. Some of the pups have departed the island but a large percentage remains. The tags which were placed on these animals in March are holding up well, although some of the numbers on the plastic tags are showing signs of wear. There is no sign of necrosis (in the tissue) around either the plastic or monel tags. The plastic tags are easily read by an observer walking through the sleeping animals. The numbers can be read without disturbing or having to handle the animals. Table 1. summarizes the Mirounga survey.

TABLE 1. Census of Mirounga angustirostris, San Nicolas Island, 7 April, 1968.

Age	Female	Male	Unknown
Adult	13	-	-
Subadult	6	2**	132
Yearling	-	6	165
Yearling/Subadult*	-	-	90
Pups	93	-	-
	112	8	387 Total 507

* Yearling/Subadult group closely packed together and ages not distinguishable.

** One of the animals with a small proboscis, age ca. 7-8 years.

The following is a list of Tag Numbers recorded, 7 April 1968: Red Plastic: 10,35,24,2,32,37,14,3,26,12,21,20,34,9,61,33,5,6,19,60,29,52,41,53,84,82,76,77,88,68,83,93,91,57,86,69,74,66,87,67,85,71, and 64.

Monel tag numbers: (UC prefix on all following numbers)(No plastic tags attached to these animals). 1341,1427,1430,1474,1483,1481,1491,1496,1443,1414,1448.

Zalophus californianus

This species was not censused. The females continue to abort fetuses. Sixteen of the premature (aborted) animals were found. All were in natal pelage; during the March visit the aborted animals were not yet furred. I assume this to be an abnormal situation, but can offer no explanation for the occurrence.

296°

OBSERVERS:

Ship
Direction

~~RESEARCH~~ : ~~ENTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 18 March 1968
Pg.# 1

SPECIMEN

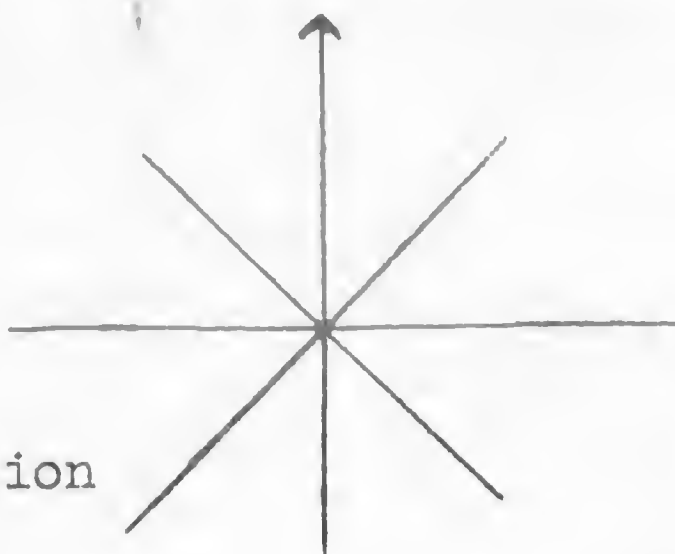
or

TIME SPECIES # DIR. BAND NO. REMARKS

0700					START OF observations
0715	GULL	1	EE		2nd year - Feeding
0720	CALIF. GULL	2	NE		ADULT & 1st year
0728	HERRING GULL	1			ON WATER - THEN TO WEST
0735					ON WATER - BLACK HANDED - LOW ACROSS H ₂ O - SLOW STEADY BEAT
0736	GULLS	4	NE		MIXED AGES
0737	Herring Gulls	7			ON WATER 2 ADULTS - 5 IMMATURE
0742	GULL	1	SW		IMMATURE
0750	GULL	1	SW		2nd year
0753	Herring Gulls	2	SW		ADULTS
0754	GULL	1	W		1st year
0754	GULLS	2	EE		Following ship
0756	GULLS	6	EE		Following ship 2 ADULTS
0758	GULLS	3	EE		
0800					
0806	Herring Gull	1	W		COURSE CHANGED TO 278° FROM 296°
0806					ADULT
0809	GULL	1	EE		NO BOTTLES FOLLOWING
0815	Herring Gull	1	W		2nd year
0828	CORMORANT	2	SE		ADULT
0829	GULL	1	EE		IMMATURE
0845	GULL	1	W		IMMATURE

All Herring Gulls ARE Western Gulls
Except 1 at 1427.

OBSERVERS:

Ship
Direction

Sioux City
R.V. JORDAN: EASTROPAC
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 23 Mar 68
Pg. # 2

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

	1400	Western Gull	2			— began observations
		Gull sp.	1			— following 1 ad 1 im
M	1404	Dull prop	5	SW		
	1405	Loon sp.	1	S		
	1411	Gull sp.	1	N		— imm
M	1417	Dull prop	2	NE		
	1422	"	1	NE		— swam off the bow for a few seconds
	1427	Herring Gull	1			— following, ad
	1430	Loon sp.	1	SW		
	1432	Gull sp.	1	N		— ad
	1435	Gull sp.	1	N		
	1457	Dull prop	9+	E		
	1640	Dull prop	10			
	1650	Gray whale	1		N	
	1707	CORMORANT	1	SW		
	1711	HERRING GULL	1	SW		— ADULT
	1712	ALCID	1	SW		— BLACK MANDIBLE - WHITE BELOW
	1714	CORMORANT	1	SW		
FF	1722	Mull sp.	100+			— swirling over surface
						added 6 gulls following - great abundance noted in the species column.

A hand-drawn diagram of a 3D coordinate system. It features three axes: a vertical axis pointing upwards, a horizontal axis pointing to the right, and a diagonal axis pointing towards the bottom-left. The axes are labeled with arrows at their ends. A grid of lines is drawn in the three planes defined by these axes, creating a 3D effect. The word "ion" is partially visible at the bottom left of the diagram.

~~P.T. DEAN EASTRICK~~

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 24 March 1968
Pg. # 1

or

0603-SR

[illegible]

Time	Species	Count	Notes
0835			START observation
0856	BFA	3	all
0856	Herring Gull	6	all
0906	Herring Gull	8	all
0908	"	9	all
0942	BFA	2	all
0956	Herring Gull	4	all
1010	"	6	all
1033	BFA	2	all
1045			
1105	BFA		
1220	Domestic	1	N
1235	Herring Gull	5	E
1326			
1330	BFA		
1402	Shear/pet	1	NE
M 1403	Seal up	1	N
1425	Albat up	1	N
M 1426	Seal up	1	N
1430	Storm pet	1	N
M 1443	Eared Seal	1	
1455	Albat up	2	all
1507	Canal Seal	1	E

ALL ADULTS
7 ADULTS
1 1st year
7 ADULTS
2 1st year
BOTH WITH DARK RUMP - ONLY BIRDS
3 ADULTS
1 1st year
4 ADULTS / 2 1st year 1 2nd year
ONE DARK / ONE LIGHT RUMP
TWO EARED SEALS

Double 5
Ad. LT PL.
2 Ad.
1 sub.
2 1st yr.

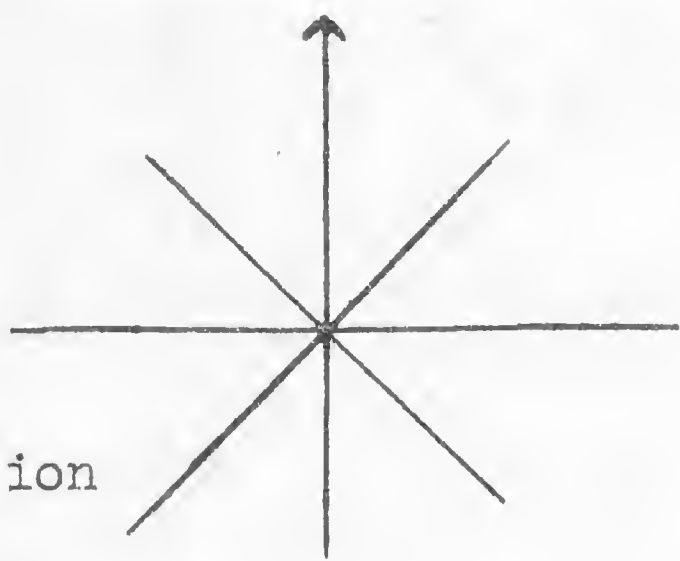
Single & Vostrey found of
Total 6 in or migrants.
Total 10 3 Ad, 2 SA. 5 1 imm.

All dark with some light underwing
fast straight flight, low to water, all dark
Saw only for instant, could not relocate

SI-MNH-958-e
Rev. 5-66

SI-MNH-958-e
Rev. 5-66

OBSERVERS:

Ship
Direction

Storm Pet.
R. V. JORDAN: EASTROPAC
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

 Date 24 Mar 68
 Pg. # 2

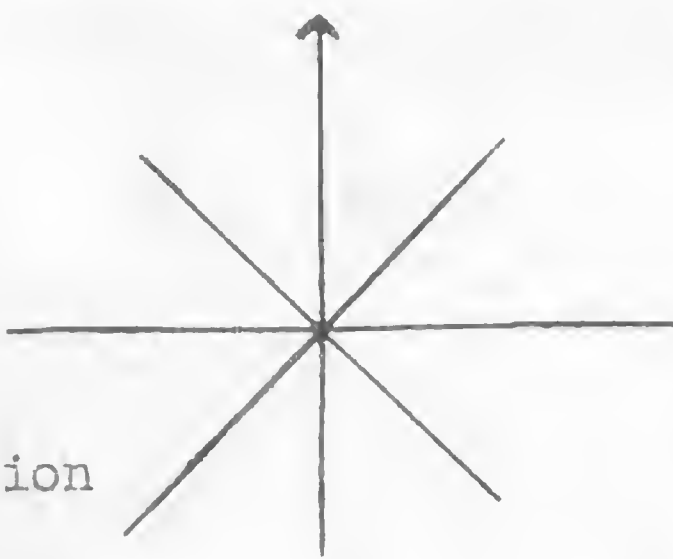
 SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1503	Storm Pet	3	eee	
1510	Alcid	2	NW	BLACK - LITTLE LIGHTER BELOW
1512	"	1	W	"
1515	Storm Pet.	1	eee	
1540	Alcid	1	eee	
1547	Storm Pet	1	NW	BLACK - ON H ₂ O when FIRST NOTED
1549	Alcid	1	eee	WHITE NOTED
1600	Storm Pet	1	eee	BLACK
1602	" "	1	eee	
1603	" "	2	eee	
1605	" "	2	eee	WHITE BAND
1607	" "	1	eee	WHITE BAND
1608	" "	2	eee	WHITE BAND
1609	Herring Gull	12	eee	
1612	BFA	8	eee	TOTAL 9 ADULT 3 IMMATURE
1615	Storm Pet	2	eee	TOTAL
1620	BFA	12	eee	WHITE BAND
1621	Storm Pet	1	eee	TOTAL
1628	Alcid	1	eee	
1636	Storm Pet	1	eee	ON WATER - ALL DARK WITH WHITE BELLY TOOK OFF TO WEST
1648	Phalarope	3	eee	
1649	Alcid	1	eee	
1649	Storm Pet.	1	eee	ON H ₂ O cf. CALIF. MURRE
1655	" "	3	eee	
1657	Alcid	1	eee	
1710	Storm Pet.	3	eee	ON H ₂ O BLACK HEAD & NECK
1715	"	1	eee	WHITE BAND
1720	"	1	eee	
1726	"	1	eee	
1745	"	1	eee	
1750	Storm Pet	1	eee	ORCINUS ORCA - 3 groups of AT LEAST 2 each TRAVELING E
1752	" "	1	eee	EACH GROUP 2 ONE LARGE MALE ca 25 ft.
1807	" "	1	eee	WHITE BAND
1832	" "	1	SS	white Rump.
			SS	

added 1609 - 12 Herring Gull following
 with abundant ^{glottal} special column

OBSERVERS:

Ship
Direction

5
~~SMITHSONIAN INSTITUTION~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN

or

Date 25 MARCH 1968Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

0600 CHANGED COURSE TO 165°

0612 SUNDGE

0626 Herring Gull 1 000 1st year

0628 Herring Gull 3 000 2-1st year - 1-ADULT

0640 Herring Gull 1 000 ON H₂O - 1st year0642 " " 2 000 ON H₂O - BOTH 1st year

0643 STORM PET 1 000

0655 BFA 1 000

0656 Herring Gull 1 000 DARK RUMP

0721 " " 6 000 S-ADULT - 1 1st year

0815 Herring Gull 3 000 ON H₂O - 2-ADULT 1-1st year

0815 GLAUCOUS WING 1 000 4 ADULTS 1 1st year

0849 STORM PET 1 000 1st year

0918 PHALAROPE 1 000 WHITE RUMP

0925 STORM PET 1 000

0945 " " 1 000

1100 STORM PET 1 000 WHITE RUMP

1102 Sooty 1 888

1102 Shear 1 E moving (fuzzily?)

1158 STORM PET 1 000 WHITE RUMP

1220 WRSP 2 888

1231 WRSP 1 550

1314 WRSP 2 888

1320 Sooty Shear 1 500

1414 R. Phalarope 1 888

1432 WRSP 1 000

1436 " 2 000 within 1 mile of squall line

1502 " 1 000

1545 " 1 000

1610 " 1 888

1710 " 1 888

1745 " 2 000

1830 " 2 000

1850 BFA 1 000

1855 " 1 000

1900 " 1 000

1910 " 1 000

1920 " 1 000

1930 " 1 000

1940 " 1 000

1950 " 1 000

2000 " 1 000

2010 " 1 000

2020 " 1 000

2030 " 1 000

2040 " 1 000

2050 " 1 000

2100 " 1 000

2110 " 1 000

2120 " 1 000

2130 " 1 000

2140 " 1 000

2150 " 1 000

2200 " 1 000

2210 " 1 000

2220 " 1 000

2230 " 1 000

2240 " 1 000

2250 " 1 000

2300 " 1 000

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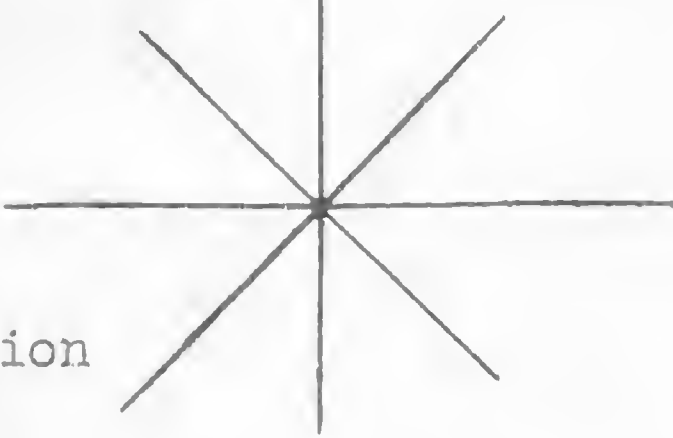
6010 " 1 000

June 090

OBSERVERS:

~~STONY CITY~~
~~RESEARCH~~ EASTROPAC
 SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

Ship
 Direction



SPECIMEN

or

Date 24 May 68
 Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

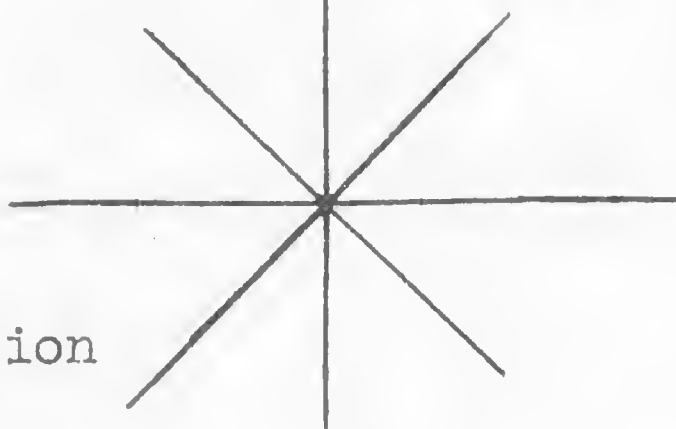
0610					Sunrise
	Her Gull	3			Following ship - all Ad.
0615	"	1			1 dark imm (now 4)
0616	"	1			1 Ad. (now 5)
0620	BFA	1			Following (dark rump)
0623	WRSP	1	all		very wind blown
0628	Her Gull	4			Following (Now 4 Ad, 15 Ad, 4 imm.)
0630	BFA	2			" (now 3 dark rumps)
0632	Her Gull	1			now 14
0633	R. Phal	1	new		flying stiffly into wind
0640	"	1			sitting on the C
0641	Her Gull	2			now 12 present
0645	WRSP	1			flying easterly
0715	"	1	all		
0733	"	1	new		WHITE RUMP
0735	"	1	new		WHITE RUMP
0754	"	3	all		" "
0755	"	1	all		" "
	BFA	5	all		Feeding
1220	BFA	3	all		dark rump
1245	BLK	1			
CC 1350			all		1 imm
1340	WRSP	1	all		change course to 160 True
1410	all				
1445	Longspur Alba.	1	all		Call back when 1 imm T
1530					
1632	WRSP	1	all		DELPHINUS sec. 12 med. large - E WHITE Δ IN DORSAL PASS NOW BUT DIDN'T Ride
1655					
1656	F. Imm	2			dark - 2
1705					
1717	Fulmar	1	all		dark phase

S

T

W

Line #160



Ship
Direction

Sioux City
~~R-V JORDAN~~: EASTROPAC
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 26 May 68
Pg.# 2

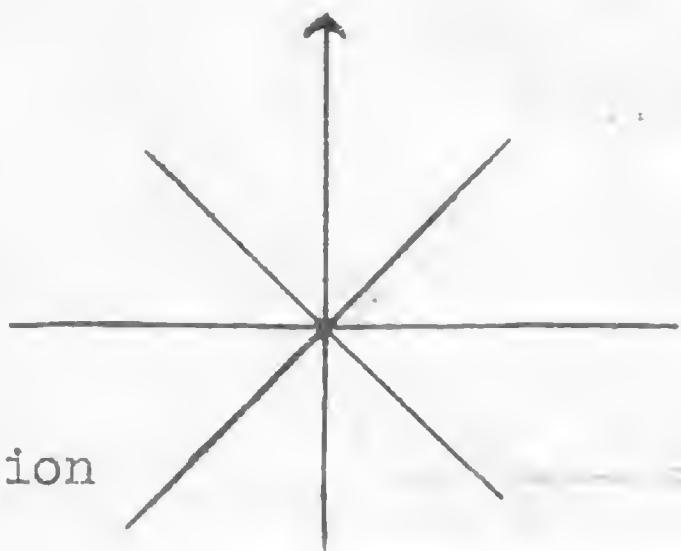
SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1723	BFA	6	WD	—	following
1725	Fur Seal	1	—	—	no intrinsic seam
1726	"	1	—	—	"
1745	Phalarope	1	—	—	
1750					Seal Seal - small
1750	Sooty Sh. r.				
1755	BFA				total 10
1800					AT ELW - CHANGE NAME TO 2550

W

Added 0642 Herring Gull
12 - following with abundance
flagged in Col 54

OBSERVERS:

Ship
Direction

Sioux City
~~R. J. TORRES~~ EASTROPAC
 SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

SPECIMEN

or

Date *27 Mar 68*
Pg. # *1*

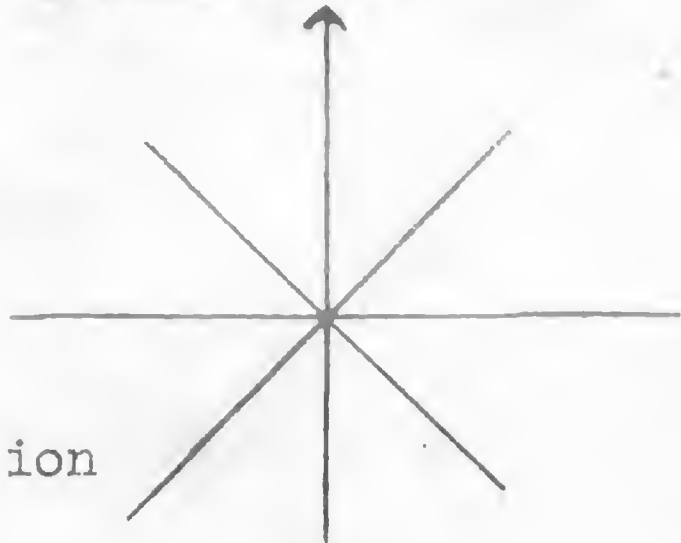
TIME SPECIES # DIR. BAND NO. REMARKS

0625					Sunrise
0715	WRSP	1	all		Trouble with ship, no early observations made.
0915	Herring Gull	11			following (6 Ad, 1 SA, 4 Imm.)
0915	BFA	3			2 dark rump, 1 light rump.
1132	GWCond	1			Imm.
1134	WRSP	1	all		
1136	"	2	all		
1247	"	1	all		all white wing
1352	"	1	all		
1430					of fainter 1. Larger ad. an L. Can't have been made on 4. Don't think it was Albatross b.h. at same. Seen only briefly - possible immersion - but of Protonotaria 4 b.h. with same wing. To take so
1500					
1530	WRSP	1			
1538	"	1	all		
1706					2 ad. Pterodroma (C. h. a. l. a.)
1715	BFA	9			following
1720	WRSP	2	all		
1720	BFA	13	all		
1725	WRSP	2	all		following
1825	Sooty Shear	1	E		
1830					Sunset

March 28

OBSERVERS:

Ship
Direction



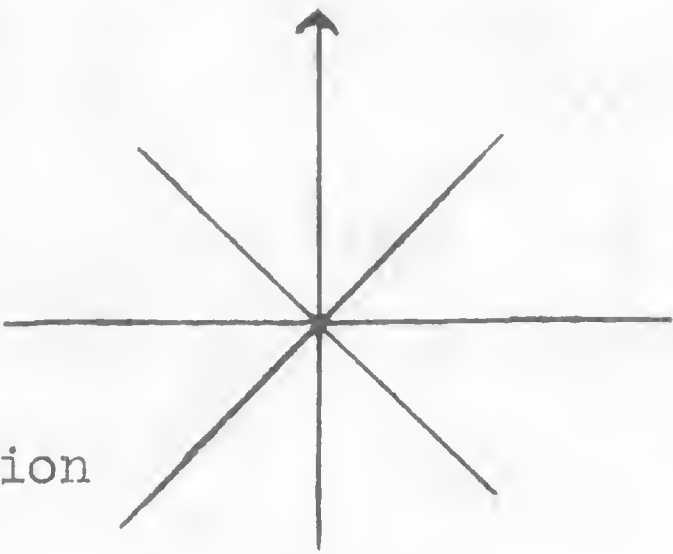
SIoux City
~~R.V. JORDAN: EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 28 MARCH 1968
Pg.# 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1515					<u>Delphinus delphis</u> ca 50 dolphins - many of del . (2 rising bow at one time, all appeared about the same size. (ADULTS). ONE LARGE SPECIMEN (GIETH) WAS PROBABLY PG. NOT THE <u>Delphinus</u> WITH THE WHITE Δ IN THE DORSAL. Some of these HAD THE GRAYISH PATCHES IN THE DORSAL. DeLong and Brownell tried unsuccessfully to collect specimens.
1517					<u>Callorhinus</u> - 1
1540					<u>DELPHINUS delphis</u> ca 40 dolphins
1605					End, 3 Sooty Shearwaters, <u>Myiura</u> 750 mixed dolphins - see EAC 38 report MHE
1715					<u>LAGS RLTS</u> ca 100
1741	<u>Delphinus</u>	1	N		flaw, landed on H ₂ O, then flew N again
1753	<u>Sooty Sh</u>	1	NW		
1800	<u>Frigate</u>	1	N		
1822					Sunset



Ship
Direction

~~R. J. JORDAN: EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date
Pg. #

28 MARCH '68

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

0555 SURPRISE

0715 BFA 2 all feeding one dark rump

0715 Herring Gull 3 all 1 Adult / 2 1st year

0828 " 2
0831 Phalarope 1 N DO H₂O - ADULTS

1030 1 RSP 6 8/18

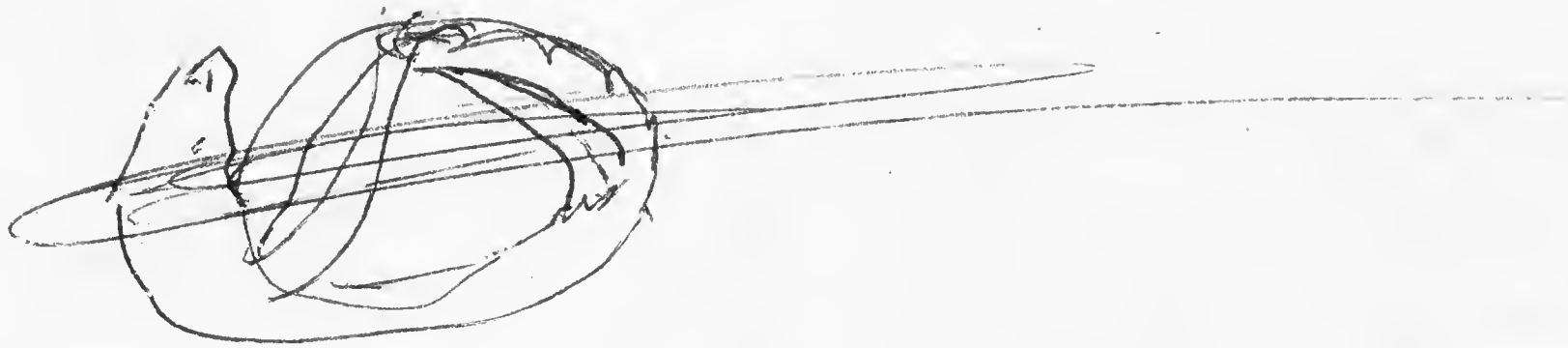
1115 2 albatrosses - 2 seen - far out - mostly on back with one front flippers? 1 seen flippers out of water. Non guided
1148 Red Phel 2 Sitting. H₂O flew when ship passed & resettled on H₂O

1255 all was 1

1255 all

One Callorhina

Wedge shaped in cross.



SHIP

DATE _____

[illegible]

E.A.C. CRUISE DATA

SHIP

June City

DATE

24 June 1961

	TIME	LAT.	LONG.
SUNRISE	0606	35°05'	121°32'
SUNSET	1802	34°50'	124°11'

23 Miles Non Grid

TOTAL MILES TRAVELED SUNRISE TO SUNSET _____ $T = 33$ miles
 $S = 76$ miles

POSITION

TIME	LAT.	LONG.
0400		
0600		
0800	35°01'	121°57'
1000	34°59'	122°23'
1200	34°57'	122°50'
1400	34°51'	123°17'
1600	34°53'	123°39'
1800	34°50'	124°01'
2000		
2400		

COURSE OR SPEED CHANGE

FROM	TO	(AT)	LAT.	LONG.

Position at 0700

DATE March

TOTAL MILES TRAVELED SUNRISE TO SUNSET _____

POSITION _____

S = 18 miles
T = 65 miles
W = 30 miles
113

TIME	LAT.	LONG.
0400	34-01	122-00
0600	34-01	122-02
0800	34-11	122-45
1000	34-07	122-28
1000-1010		
1200	34-09	122-06
1400	34-00	121-51
1600	33-40	121-43
1600-1630		
1800		
2000		
2400		

[illegible]

DATE 27 March

TOTAL MILES TRAVELED SUNRISE TO SUNSET V = 92 miles

TIME	LAT.	LONG.
0400		
0600		
0800		
1000		
1200	33-20	124-14
1400 1500	33-04	124-14
1600		
1800 1945	33°-05'	123-24'
2000		
2400		

[illegible]

SHIP

SHIP

SHIP Leona City

DATE _____

DATE 28 March 68

	TIME	LAT.	LONG.
SUNRISE	0555	32° 10'	121° 31'
SUNSET	1822	32° 14'	119° 47'

TOTAL MILES TRAVELED SUNRISE TO SUNSET

$w = 25$ miles

Non Grid: 63 miles

POSITION	0200	33° 00'	122° 23'
TIME		LAT.	LONG.

0400		
0600		
0800		
⁰⁹³⁰ 1000	32° 10'	121° 15'
1200	32° 13'	120° 58'
1400		
¹⁵⁴⁵ 1600	32° 16'	120° 05'
¹⁷⁰⁰ 1800	32° 18'	120° 02'
²²⁰⁰ 2000	32° 17'	119° 01'
2400		

COURSE OR SPEED CHANGE

[illegible]

(150) 195

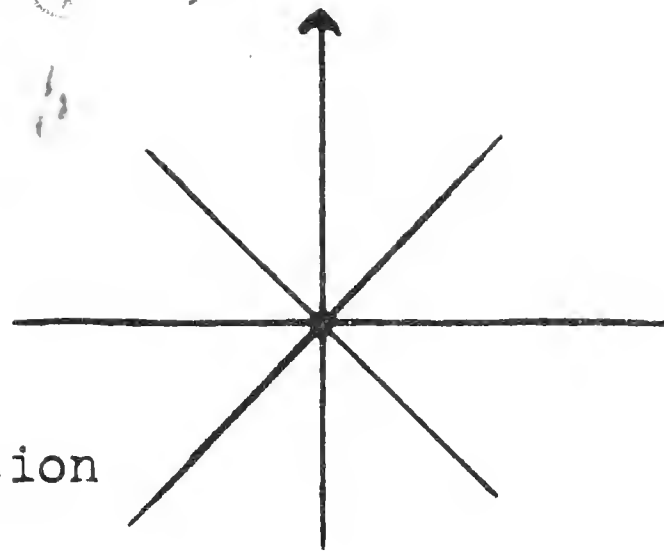
SAC 40 - 3

OBSERVERS:

CHANDLER

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Ship
Direction



SPECIMEN

or

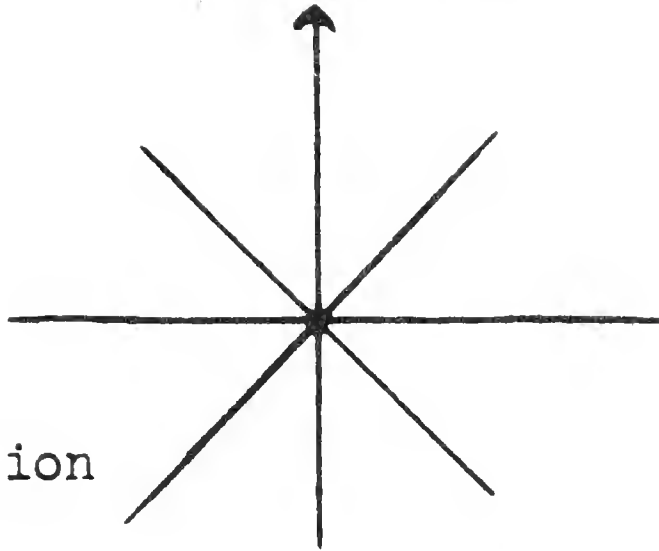
Date 17 APRIL 68

Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0747					BEGIN OBS. CA 8 MI SPT. LONA
0750	BR. PEL	2	ce		
0752	WEST GULL	6	N		ads leading to shore
0755	" "	8+	N		"
0757	" "	25+	N		mostly ads. all leading N rapidly
0759	" "	50+	N		not following ship
0802	CORM SP	80+	E		"
0803	"	40+	E		
0804	W GULL	75+	N		as above
0805	CORM SP	50	ce		} ON H ₂ O 2 flocks
0805	"	75	ce		
0807	W GULL	50	ce		
0809	LOON SP	1	ce		ON H ₂ O PAC. WINTER LOON
0810	"	4	NW		FLYING BREED PLUM
0811	SOOTY SH	1	ce		
0812	LOON SP	1	NW		breed plum
0814	XANIM	2	ce		phalae
0815	LOON	1	NW		
0817	SOOTY SH	1	ce		
0818	CORM	20+	G		
0819	BON. GULL	1	ce		
0820	"	3	NW		
0821	"	2	NW		
0826	SCOTER	10	G		ON H ₂ O OFF N END CONCHADO J.
0828	"	50	ce		
0829	BR. PEL	2	ce		
0830	BON. GULL	4	ce		
0834	W GULL	25+	ce		ads following
0835	RED PHAL	2	ce		
0837	LOON	2	ce		unite
0843	SOOTY SH	3	ce		
0850	W GULL	100+	ce		almost all ads following 6-10 mi
0855	PINK FOOT	1	ce		

LOONS SP =

195 True

Ship
Direction
 SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

OBSERVERS:

K. L. V. E. V.

Date 04-17-48

Pg. #

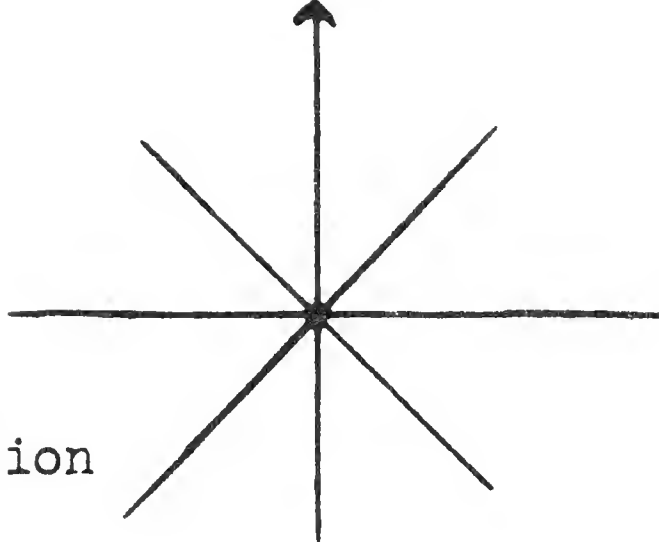
2

SPECIMEN

or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
08 57	St Petrel	1	N	—	larger, slow flight, complete dark wings. No white seen anywhere
58	Sooty Sh	4	S	—	
09 01	Red Phal	2	—	—	sitting.
02	Sooty Sh	1	W	—	
04	Red Phal	1	S	—	
05	Sooty Sh	1	S	—	
06	Herring Gull	1	SW	—	Ad.
07	Red Phal	6	W	—	
16	St. Petrel	1	N	—	same as at 0857.
17	Bonap. Gull	1	COO	—	Ad.
23	St. Petrel	2	W	—	same as 0857
27	Sooty Sh	1	N	—	
31	"	1	S	—	
33	"	2	S	—	
34	Pom Jaeger	1	W	—	Ad. lt.
39	Red Phal	2	—	—	sitting
42	"	2	N	—	
43	"	1	S	—	
43	Bonaparte's	1	COO	—	Ad.
46	St. Petrel	2	W	—	1 St. WRSB & dark-rumped bird. together.
47	Sooty Sh	1	SE	—	
10 00	Shear. sp.	1	COO	—	
12	Phal sp	1	N	—	
20	Sooty Sh	2	COO	—	
28	Phal sp	3	N	—	
29	"	1	—	—	sitting
30	Red Phal	2	W	—	
32	BFA	1	—	—	Dark wings
34	Sooty Sh	1	S	—	
38	Pom Jaeger	1	N	—	Ad. Lt.
49	Red Phal	1	E	—	
50	Phal sp	1	N	—	
52	Sooty Sh	1	N	—	
54	Alcid sp	2	S	—	
58	Sooty Sh	2	N	—	
11 02	Red Phal	1	N	—	
11	Sooty Sh	1	E	—	

195 June

Ship
Direction
 SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

OBSERVERS:

SPECIMEN
orDate 04-17-68
Pg.# 5

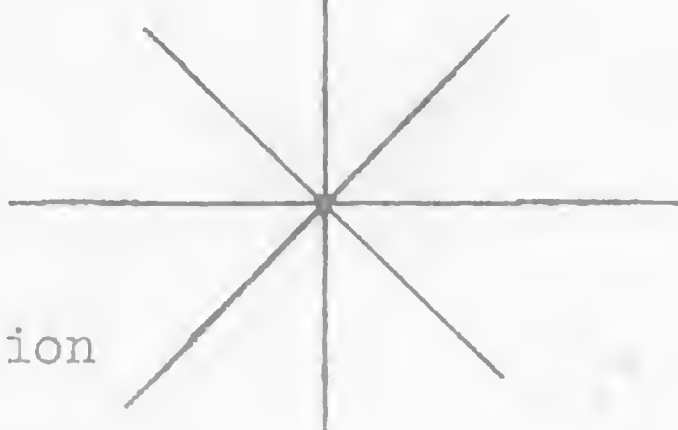
	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
11	20	Phal sp	2	S		
	26	St. Petrel sp	1	COO		
	26	Sooty SH	1	N		
	40	" "	1	SE		
	48	" "	2	SE		
	50	" "	2	SE		
	51	ST PET SP	1	COO		
	51	SOOTY SH	1	SE		
	51	" "	1	SE		
	56	" "	1	W		
	57	RED PHAL	1	W		
	59	ST PET SP	5	COO		black sp ???
12	07	RED PHAL	2	COO		on H ₂ O
	20	SOOTY SH	1	SE		
	23	" "	1	SE		
	24	" "	1	SE		
	27	XAN M	2			
	28	Red Phal	3			
	32	SOOTY SH	2			
	47	" "	3	SE		
	49	" "	1	SE		
13	00	" "	1	W		
	03	" "	1	W		
	26	" "	1	SE		
	30	" "	1	SE		
	32	" "	1	E		
	38	" "	1	SE		
	48	STORM PET	1	COO		all dh.
	50	SOOTY SH	1	E		
	59	" "	1	E		
14	00	" "	1	SE		
	03	" "	2	E		
	04	" "	2	SE		
	05	Storm Pet	1	SE		Large, all dark
	08	Red Phalarope	1			Sw H 04
	"	"	1			"
	14	Sooty Shear	1	W		1 mi from water.

 90° to overcast
 WIND WEST at 15 kts
 SEAS 6' at 270M

195 June

OBSERVERS:

Ship
Direction



~~R. V. JORDAN: EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

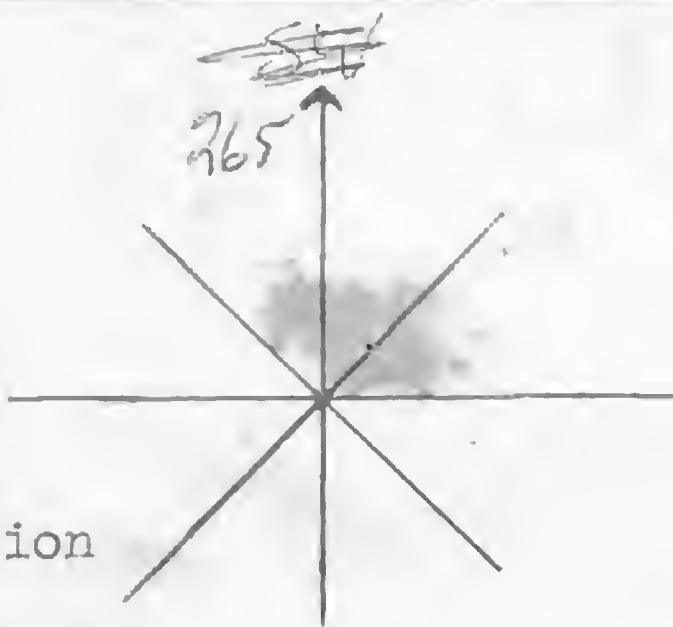
Date 04-17-68
Pg. # 4

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

1414	Red Phalarope	1	SSA		
1416	Sooty Shear	2	SSA		
1420					2 O birds associated with a floating mat of kelp - probably <i>Zostera</i> based on size & color. Reliability 2.
1421					
1426	Sooty Shear	1	E		flying fast - 3.
1427	Red Phalarope	1			on the H.
1452	Sooty Shear	1	IE		
1456	WRSP	1	SSA		Normal size bird
1527	Red Phalarope	1	SSA		Id. by Vocalization
1602	"	1			sitting
1605	"	1	E		
1606	"	1			sitting
31	"	1	N		
1700	Sooty Sh	1	CO		
1740	B FA	1	CO		
1741	STORM PET	1	CO		
1750	LWRSP	1	CO		
1755	"	2	CO		out to 0
1807	SOOTY STI	1	CO		
1812	RED PHA	1			ident by call
1817					seal preying
18	ST PET SP	1	CO		back at ring
22	"	1	CO		
23					SUNSET (CLOSE OBS.



Ship
Direction

~~REV. JORDAN: EASTROPAC~~ SOUX CITY
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date
Pg. #

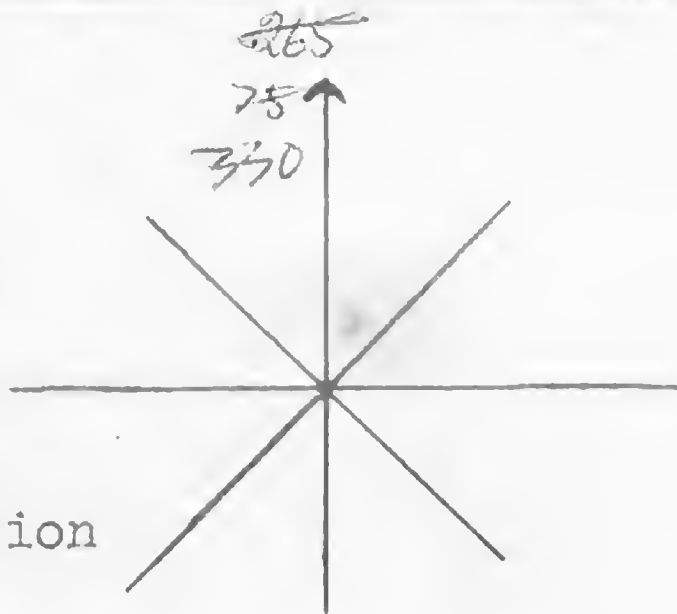
29 APRIL '68
1

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

	1305				BEGIN OBS
	1310	WEST GULLS	15+	N	WEST GULLS - flyin toward Island
	13	SHEARWATERS	28±23	N	LOOSE FLOCK moving (PINK FEET)
	15	THE PORPOISE	1	⊙	SITTING ON WATER BATHING
	15	XANTUS MURLET	1	SW	LOW OVER WATER
C	1315	SHOT SOMETHING			FROM SKIFF ← PF Shearwater
	1317	PF SHEAR	23+10+	N	LOOSE FLOCK
	1319	WEST GULL	300	G	SITTING ON WATER
	1320	PF SHEAR	5	N	
	1321	??	5	N	LOOSE FLOCK ON WATER, BLACK FAST WING BEAT, LOW OVER SURFACE, NO SOARING
	1322	PF SHEAR	1	N	
	1324	CAS. AUKLET	7	N	2 flocks - 2+5 birds
	1325	STORM PET	1		
	1328	WEST GULL	2		ON WATER SITTING
	1331	" "	3	SW	following ship
	1333	LEA STORM PET	1		
	1337	SHEAR SP	3	N	
	1338	CASS AUK	2	N	
	1340	KITTiwAKE	1	N	
	1340	DR ST PET	1		
	1342	POM YACGER	1	N	
	42	SHEAR	1	N	
	43	STORM PET	1		
	45	" "	1		
	46	" LEACH "	1		
	46	PHALAROPE	1	N	
	47	" "	4	N	
	47	WEST GULLS	5	WSSW	following ship - in addition to those at 1331 which are still low
	52	SHEAR	1	N	
	54	STORM PET	1		
C	1400	Red PHAL			
	1400	SHEAR	1	N	
	1401	XANTUS MUR	1		SITTING ON WATER
	1405	SHEAR	1	N	
C	1406	XANTUS MUR	1		
	1415	WEST GULL	15		now total of 15 following ship
	1423	STORM PET	1		
	1425	SHEAR	1	N	
	1430	STORM PET	1		



Ship
Direction

~~R. U. JORDAN - EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SOVIX CITY

OBSERVERS:

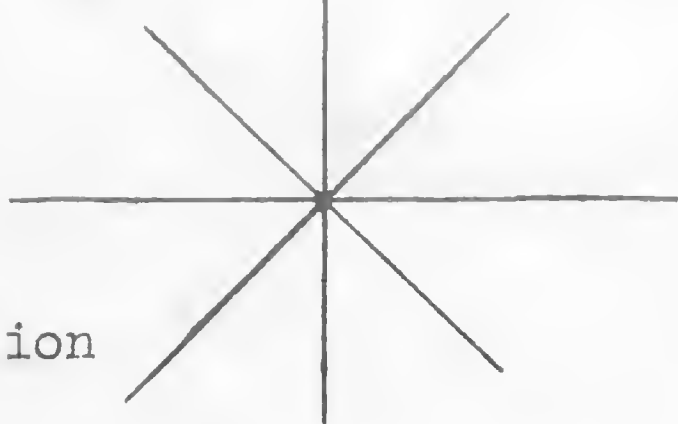
Date 29 APRIL
Pg. # 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1432	BF ALBATROSS	2	⊙		
1435	SHEAR	1	N		
1437	STORM PET	1			COURSE CHANGE TO 075
1445	" "	1			
1446	" "	1			
1450	PHALADROPS	2	N		
1453	PF SHEAR	1	N		
1453	STORM PET	2			
1455					STOP OBS BEGIN OBS - COURSE 330
1520					
1521	STORM PET	1			
1523	BFA	1	SE		
1524	WEST GULL	9			follow ship on water
26	STORM PET	1			
28	XANTUS MURRETT	1			
1540	STORM PET	2			
41	" "	1			
41	WEST GULL	1	SE		
44	STORM PET	2	W		
47	SHEAR	1	N		
1555	STORM PET	1			
1558	PDM YAEGER	1	N		
1601	SHEAR	1	N		
01	STORM PET	1	F		DK RUMP
03	" "	1			
12	" "	1			
19	" "	1			
20	" "	2			not together
21	" "	3			
26	" "	2			
29	" "	1			
31	PF SHEAR	1	SE		
34	STORM PET	1	E		
34	" "	1			
36	" "	3			
38	" "	2			
41	" "	2			
42	" "	1			
44	" "	3			
47	" "	2			
47	" "	1	E		
55	" "	1	E		
1701	Pom Jaeger	1	N		AL Lt Phase
06	Black St Pet	1	000		

345 June 330 May



Ship
Direction

R. V. JORDAN: EASTROPAC *Sioux City*
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

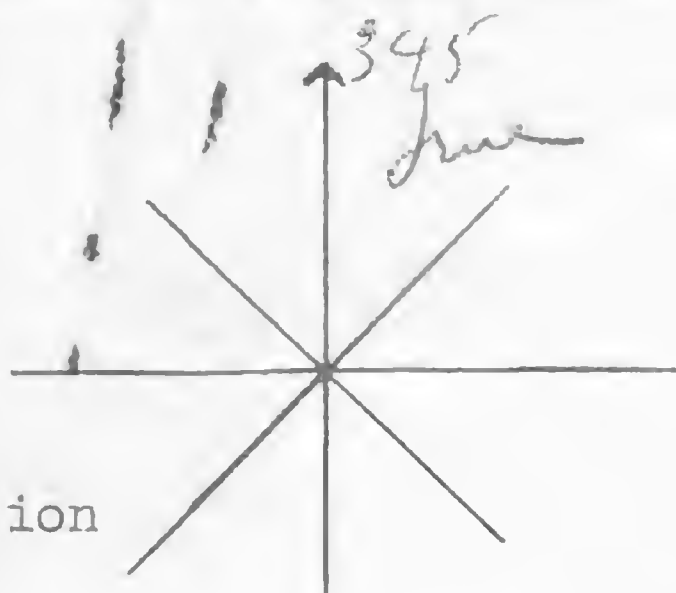
V. Kleen

Date *29 April 1968*
Pg. # *3*

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1707	Blk SPet	1	E		
08	"	1	N		
09	"	1	W		
12	"	1	E		
	LDRSP	2	E		
13	"	1	E		
15	"	4	E		
17	Blk SPet	3	N		
21	"	3	N		
26	"	1	NW		
27	"	2	N		
28	"	1	W		
35	"	4	all		
38	BFA	1	SE		Mottled Rump
41	LDRSP	1	E		
42	Black SPet	2	NE		
43	"	1	E		
45	Leach's NR	1	N		
49	"	1	NE		
50	Black SPet	1	NE		
53	St Pet sp	1	NE		
55	"	2	all		
1803	Blk SPet	1	W		
06	Leach's DRSP	1	NE		
12	" "	1	all		
22	Blk SPet	3	all		
29	LDRSP	1	all		
30					CLOSED OBSERVATIONS

Ship
Direction



R. J. JORDAN: EASTROPAC
S. J. City
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

P. K. 224

Date *30 Apr 68*
Pg. # *1*

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

1020 *Begin Observations*

24 PF Shear 1 E
25 Sooty Sh 1 E
38 Blk St Pet 1 W
39 " 1 W
40 Sooty Shear 1 E
44 " 1 E
46 " 2 E
46 Blk St Pet 1 W
49 Sooty Shear 1 E
51 Blk St Pet 1 W
1104 Kermadec Mur 2 NW

1110 *Close Observations*

1140 *Open Observations*

1148 Blk St Pet 2 *following ship*

1152 Sooty Sh 1 S
1201 Blk St Pet 1 W
1206 Hummingbird 1 N
1209 Sooty Sh 1 E
1212 Blk St Pet 3 *following ship*
1221 Sooty Sh 1 S
1229 Pom Jaeger 1 NE
1247 W. Shear 1 S
48 Sooty Sh 1 S
49 Blk St Pet 1 N
56 Sooty Sh 2 E

1300 *Close Observations*

1400 *Open observations*

06 Red Phal 1 N
20 BFA 1 *Dark ramp - following*
21 Black Petrel 2 *following*
22 Sooty Sh 2 E
24 Blk St Pet 2 W
25 Laysan Wren 1 SE
26 Pom Jaeger 1 N

26 Blk St Pet 1 W
28 Red Phal 1 *Ad Lt Phase*
33 Blk St Petrel 3 N
38 Red Phal 1 *Ad*
39 Blk St Petrel 2 N
40 Sooty Sh 1 E
49 Herring Gull 1 N
50 Songbird 1 *Ad*

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

V. Klein

Date 30 April 68
Pg. # 2

SPECIMEN
or

SI-MNH-958-e
Rev. 5-66

SHIP

DATE _____

LONG.

0555

3307

1180 100

Count from Sun Day. 300 June

TOTAL MILES TRAVELED SUNRISE TO SUNSET _____

Speed: 10 knots

LONG.

0400		
0600	33° 09'	118° 19'
0800	33° 16'	118° 38'
1000	33° 25'	118° 57'
¹¹³⁰ 1200	at Santa Barbara Island	
1400		
1600		
1800		
2000		
2400		

(53° 24' N) (119° 02' W)

(AT)

LONG.

[illegible]

E.A.C. CRUISE DATA

SHIP

Shrimp 643

DATE

7 Apr 1965

TIME

LAT.

LONG.

SUNRISE

SUNSET

TOTAL MILES TRAVELED SUNRISE TO SUNSET _____

POSITION

TIME	LAT.	LONG.
0400		
0600		
0800 0820	34°01' N	119°32' W
1000	33°54'	31°
1200 1200	33°34'	119°26' W
1400	33°14' N	
1600 1600	33°13' N	119°22' W
1800 1800	32-40	119° 55'
2000		
2400		

San Nicholas I.

COURSE OR SPEED CHANGE

FROM TO (AT) LAT. LONG.

175				
175	Turn			
225	Turn			

From Santa Cruz to
San Nicholas I.

Begin at 1500

E.A.C. CRUISE DATA

SHIP

SHIP Swire City

DATE _____

DATE 8 April 65

TIME

LAT.

LONG.

SUNRISE

SUNSET

TOTAL MILES TRAVELED SUNRISE TO SUNSET _____

0015	=	31° 50' N.	121° 00' W.
0145	.	31° 40' N.	121° 17' W.
POSITION			
TIME		LAT.	LONG.

0400		
0600		
0800	32°47'N	122°12'W
1000	31°57'N	122°9'W
1200		
1400	32°07'N	121°46'W
1600		
1800		
2000		
2400		

headed home at
1100 hours.

COURSE OR SPEED CHANGE

FROM

TO

(AT)

LAT.

LONG.

SHIP

DATE _____

LONG.

SUNSET

POSITION

Speed 6 knots.

LONG.

LONG.

300 True

OBSERVERS:

Kleen
Church

~~R. J. JORDAN - EASTROPAL~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Ship
Direction

SPECIMEN

or

Date 4 April
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0610	Unvis				
0630	Herring	3	⊙		
0632	Jaeger sp.	1	WNW		
0640	Gull sp.	5	⊙		
0641	Sooty Sh.	1	SW		
0645	BLK	1	⊙		
0646	Herring	1	-		
0647	Gull sp.	2	NW		
0650	Pom. Jaeger	1	NE		
0640	P. Jaeger	1	NE		
0643	Gull sp.	1	⊙		
0644	Herring G	1	⊙		
0650	Sooty Sh.	1	SW		
0651	Gull sp.	1	⊙		
0655	Herring G	1	⊙		
0655	Mammal sp.	3	NW		
0658	Gull sp.	1	SW		
0702	Bonaparte's	9	N		
0712	Herring	1	⊙		
0718	Herring	1	W		
0718	Herring	2	W		
0722	Gull sp.	6	W		
0722	Bonaparte's	1	⊙		
0722	Herring	1	⊙		
0722	Bonaparte's	1	⊙		
0725	Jaeger sp.	1	NW		
0725	California Gull	1	⊙		
0728	Alcid Sp.	1			
0732	Gull sp.	2	W		
0733	Western G	1	W		
0734	"	1			
0734	Herring	1			
0735	Im. gull sp.	1	⊙		
0735	Jaeger sp.	1	NE		
0740	California	3			
0743	Gull sp.	1	NE		
0744	Shark	1			
0745	Puffin sp.	1	N		

Sulphur 15 minutes from all
these times
Adulter - sitting

dorsals showing above water.

Adulter

adulter on water

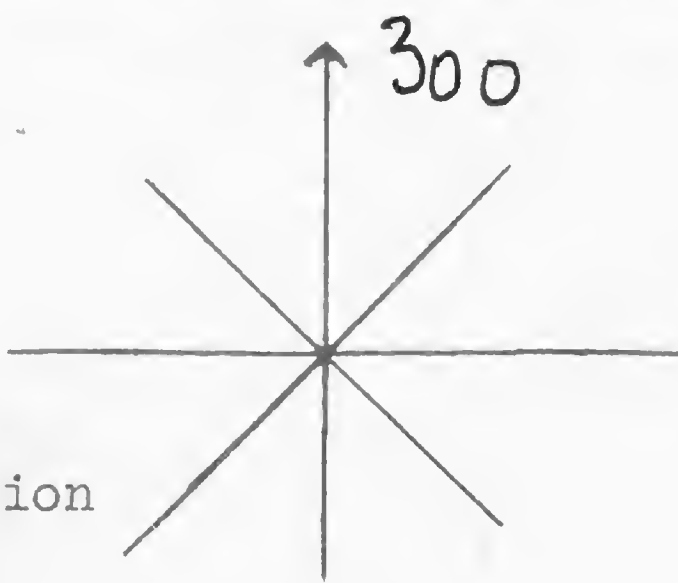
dining

Immature

on water by kelp

Adults - landed on water

4'



Ship
Direction

MV Sioux City
~~R. V. JORDAN EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

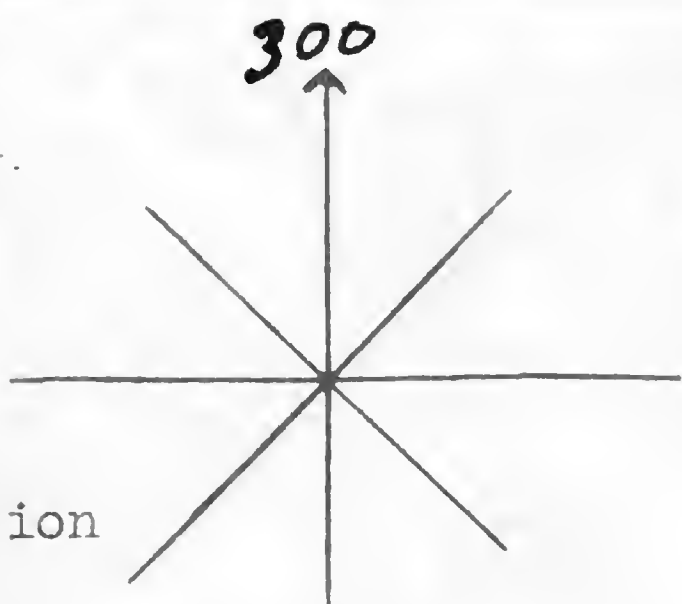
Kleen
Church

Date 4/4/68
Pg. # 2

SPECIMEN

or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
07 50	Gull sp.	1	⊙		Immature
07 55	"	6	⊙		Imm.
07 58	Alcid sp	2	—		Sitting on H ₂ O (small)
08 05					Pilot whale <u>ca</u> 12 throughout ca ca ca
08 12	Sooty Sh.	2	SW		
	Pink-f Sh	1	"		
08 14	Gull sp.	6	⊙		Imm.
08 15	Bonaparte's	1	NE		
08 16	Sooty Sh	3	⊙		
08 17	Pink-f Sh	2	⊙		
08 22	P. Jaeger	1	—		chasing & attacking 2 Gulls.
	Gull sp	2	⊙		from above
08 25	•	25	—		sitting in a kelp cluster.
26	"	1	—		" " " "
27-28	Sooty Sh	4	—		" " " "
29	± West Gull	2	NE		" " " "
31	Gull sp.	7	—		" " " "
	R. Phal	1	—		sitting alone
32	West Gull	1	—		" in kelp cluster (alone)
33	Rb Gull	1	—		" " " "
35	Jaeger sp	1	—		sitting
37	"	2	⊙		flying
38	West Gull	1	—		sitting (kelp)
40	Sooty Sh	1	—		sitting
43	Jaeger sp	2	—		"
	P. Jaeger	1	—		chasing Gulls
44	Alcid sp	2	—		sitting
48	Gull sp	35	—		sitting on kelp beds clusters
	W. Gull	8	—		" " " "
50	Jaeger sp.	4	⊙		
52	Sooty Sh	3	NW		
54	"	2	—		sitting
58	SHARK	—	—		4'
59					
29 00					Delphinus <u>ca</u> 7 3 some 2 spotted



Ship
Direction

OBSERVERS:

Siano City
~~R.V. FORDAN: EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

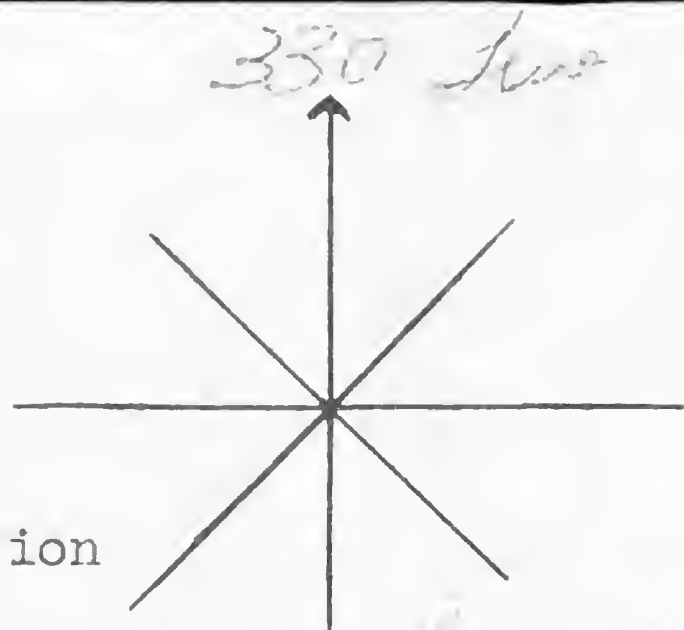
Date 4 April
Pg. # 3

SPECIMEN

or

[illegible]

Time	Species	Count	Notes
09 01	Sooty Sh.	1	sitting
09 12	Red Phal	1	"
15			Returned to course 284 (3000 fms)
21	Stiff		
21	West Gull	4	sitting on kelp
26	Jaeger sp	2	" on kelp, then flew
30	Western } Pomarine }	24 6	sitting on kelp
	Gull sp	3	
32	Red Phal	1	jumped off of water & then landed
36	Western Gull	1	sitting on kelp
38	Pomarine - F Sh	1	all
39	Sooty Sh	52	NU
40			Frappes ? three & keep
41	Black Gull	3	sitting
42	Sooty Sh	1	"
44	West Gull	5	on kelp
	Gull sp	1	
50	Gull sp	1	sitting
51	Xanthus	2	" , jumped & dived
	Pomarine	2	
52	Jaeger sp	1	flying
58	Red Phal	1	sitting
59			Frappes - two
10 10		2	"



Ship
Direction

Seaside City
~~R.V. JORDAN: EASTROPAC~~
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Church
Keen

Date *2 Apr 68*
Pg. # *11*

SPECIMEN

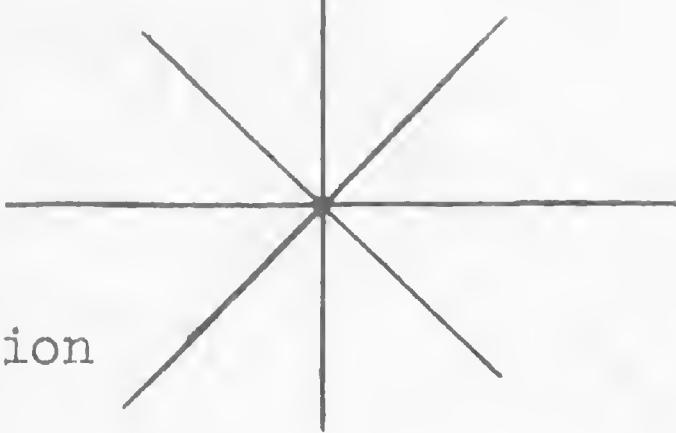
or *0545*

TIME SPECIES # DIR. BAND NO. REMARKS

08	05	Sooty Sh	4	SW		(2 of these joined the Western Gulls)
		Western Gull	2			sitting on the
08	08	Sooty Sh	1	SW		
09	09	Western Gull	2	SW		Ad
		Herring Gull	1	SW		Ad
		"	1	SE		Ad
16						SA
16		W. Gull	1	SW		Ad 1 Imm
		"	3	SW		
26						
31		Bonaparte's	1	NW		
		W. Gull	1	SW		sitting
32		"	3	SW		1 Ad, 1 Sub, 1 Imm
42						
48		Bonaparte's	1	SE		Ad
49		W. Gull	5			sitting
51		Kermadec	2	W		
57		Sooty Sh	1			sitting
10	05	W. Gull	2			1 Ad 1 Imm
	05	Red-tail	1	SW		
13		Bonaparte's	1	N		
14		W. Gull	2			sitting on kelp
16		Sooty Sh	7			" on the
17		W. Gull	2			" on "
19		Herring Gull	1			died into the, then flew
29		W. Gull	1	SW		Ad
30		"	1	SW		Ad sitting on board
36		Sooty Sh	2	SW		
37		B. Petrel	3	SE		flying & gliding
38		Bonaparte's	1	SW		
53		Bonaparte's	3			
		W. Gull	3			
		Sooty Sh	1			
52		Cormorant	2	N		
1	00					

Close Observations

160 175 Time



Ship
Direction

Sioux City
R.V. TORDAN: EASTROPAC
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Church
Kleen
Braunell

Sunday Date 4/7/68
Pg. # 1

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
Start	observations				
09 30	Western Gull	1	Q		Sitting
09 31	Cormorants	21	SW		
09 32	"	31	SW		
37	Seabird sp	2			Diving
34	Bonaparte's	1	SW		
35	Western	2	S		1 A, 1 SA Adult
36	Red Phalarope	6	SE		
38	Gull sp	2	SW		
40	Sooty Sh.	1	SE		
40	Bonaparte's	1	SW		
41	Alcid sp	2			diving
42	West G	1	SW		
44	Red Phal	4			Sitting
45	"	3			
47	Loon sp	3	W		
52	Sooty Sh	1	E		
52	Large Gull	1	W		Ad.
53	West Gull	1	W		Imm.
54	"	1	W		
55	Sooty Sh.	1	W		
56	Seabird sp	2			sitting (dived)
58	Alcid sp	6			
59	Sooty Sh	1	W		
10 00	West Gull	1	SW		
02	Sooty Sh	3	E		sitting (dived)
02	Alcid sp.	1			
05	Loon sp.	1	NW		
06	Pelican (Br.)	2			sitting
06	Sooty Sh.	1	Q		
09	Bonaparte's	2	W		
10	Loon sp	3	W		dived
10	Alcid sp	1			
11	Western G	2	W		
11	B. Pelican	2	S		
11	Sooty Sh.	1	NW		

175 June

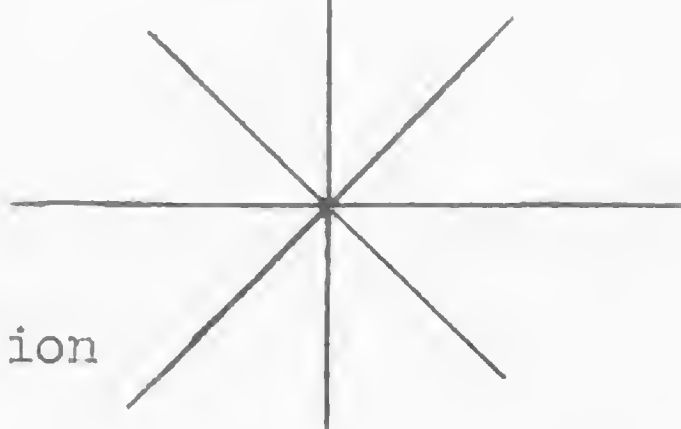
OBSERVERS:

Sioux City

R. V. JORDAN : EASTROPAC
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Kleen
Church
Brownell

Ship
Direction



SPECIMEN

or

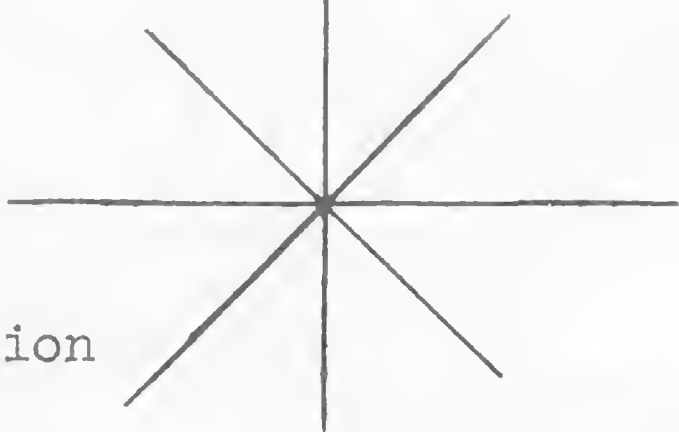
Date 4/7/68
Pg. # 2

TIME SPECIES # DIR. BAND NO. REMARKS

10	15	Sooty Sh.	2	Q		
		Western G	3	S		
	18	Sooty Sh.	13			on water
	20	Western G	2	W		
	21	Bonapartes	1	W		
	22	Sooty Sh.	1	W		
	23	Western G	2	N		
	23	Sooty Sh	2	Q		
	25	Alcid sp	2			sitting
	26	Sooty Sh.	1	Q		
	28	Jaeger Sp.	1	S		
	29	Western G	2	W		
	30	Sooty Sh.	1	SW		
	32	"	1	NE		
	33	Cal. Sealion	1			
	35	Alcid sp	4			sitting
	36	Phalarope	9			"
	36	Alcid sp.	1			"
	39	Sooty Sh	1	SW		
	39	Phalarope Sp	4			"
	42	Jaeger	1	W		
	43	Sooty Sh.	4	W		
	43	Alcid sp	1			"
	45	" "	1			"
	45	" "	1			"
	48	Sooty Sh.	1			"
	49	Herring G	1	N		
	55	Alcid sp	1			"
	55	Western G	1	N		
	56	Rhinoceros Auklet	1			collected by Kleen
11	02	Western G.	1	S		
	05	Gull sp.	1			sitting - immature
	06	"	1	NW		immature
	07	Alcid sp.	2			sitting - probably rhinoceros
	08	Sooty Sh.	1	W		
	11	"	1	E		
	12	"	1	E		
	16	Cal. Sealion	1			

160-175 June

OBSERVERS:

Brownell
Church
KleenShip
Direction

Sioux City
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DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 4/7/68
Pg. # 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
11 18	Gull sp.	1	E		Immature
20	Storm pet sp.	15+	⊙		
	Rhinos	2			sitting
	Sooty Sh	3	⊙		
28	Leach's	12	W		
35					<i>Phaenodroma dalli</i> - one observed - DIVING -
38	Storm pet	8	W		STEP ROLLS - NOTED ONLY ONE TIME
40					<i>Phaenodroma dalli</i> - 3+ ALL DIVING moving NE
41	Sooty Sh.	2	⊙		
41	Storm pet	32	SW		
42	Phalarope	2			sitting
42	Alcid sp.	1			"
43	Rhino A	1			"
44	Alcid sp	3			"
46	" "	2			"
46	Storm pet	1	N		"
46	Alcid Rhino	1			"
46	Storm pet	1	⊙		
47					<i>Phaenodroma dalli</i> 5+ DIVING - FEEDING
52	Rhino	1			STEP ROLLS - MOVING NE - WHITE ON DORSAL
52	Leach's	1	W		sitting
53	Storm pet	1	N		- dark lump
55	Loon sp	1	N		
56	Rhino	1			sitting
56	Sooty Sh	1	W		
57	Alcids	3			"
57	Sooty Sh	5	E		
12 00	" "	5			"
	Storm pet	1	W		
	Sooty sh	1	E		
	Alcid sp	1			"
06	Sooty Sh	2	E		
	"	1	W		
09	Storm pet	1	W		
10	"	2	W		
11	Bonaparts	1	S		
12	Rhino A	2			4
12					4 250 dolphins - TRAIL NE - moving
14					<i>Phaenodroma dalli</i> 2+ DIVING

SI-MNH-958-e

Rev. 5-66

400175 June

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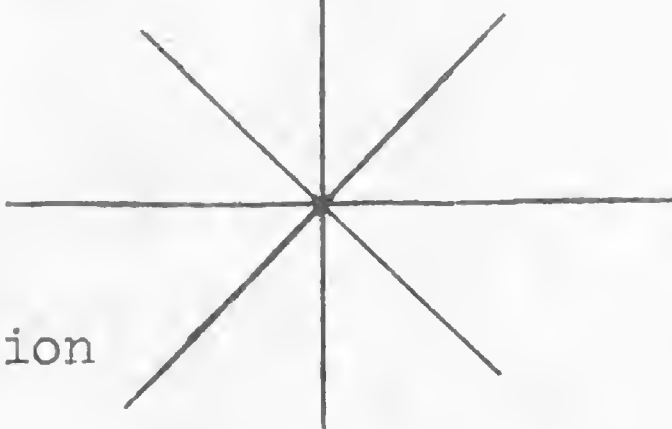
Brownell

Church

Kleen

Sioux City
R. V. JORDAN: EASTROPAC
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Ship
Direction



SPECIMEN

or

Date 4/21/68

Pg. # 4

TIME SPECIES # DIR. BAND NO. REMARKS

12	16	Western G	1	S		
	16	Sooty Sh	4	Q		
	17	Jaeger	1	NW		dark phase
	18	Sooty Sh	1	Q		
	18	Cal Western G	1	Q		
	19	Western G	3			sitting
		Sooty Sh	19			"
		Pink-footed	2			"
		Jaeger sp	1			dark phase
	25	Cal. Sealion	1			
	30	Sooty Sh	2	Q		Slowed to 5 knots
		Western G	1	Q		adult
	35	"	2	Q		
	40		8-10			white sw Vail - came to bow.
	42	Mammal sp.	3+	N		
	52	Pink-footed Sh	1			sitting
13	00					back to normal speed
	02	Western G	1	Q		adult
	04	Sooty Sh	1	W		
	10	Mammal sp	4			
	10	Western Gull	3			sitting
	11	Sooty Sh	16			"
		Pink-foot Sh	2			"
	17	Sooty Sh	1	W		
	19	"	1	W		
	19	"	1			sitting
	20	"	2	Q		
	20	"	2	W		
	21	"	1	W		
	28	"	1			sitting
	29	"	1	E		
	33	"	136			sitting
	34	"	8			"
	35	Sea Lion	2			swimming in the
	42	"	10			jumping out of water like porpoise, away from an oncoming ship.
	45	Close Observations				Approaching San Nicolas

195 True

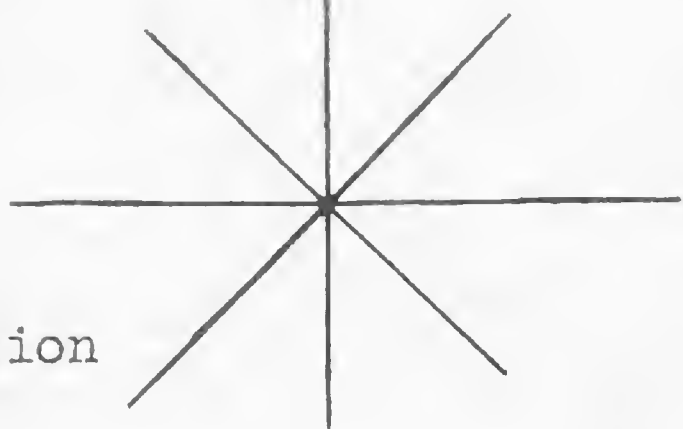
OBSERVERS:

Brounell

Church

DeLong

Kleen

Ship
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SiouX City
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 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

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4/17/68

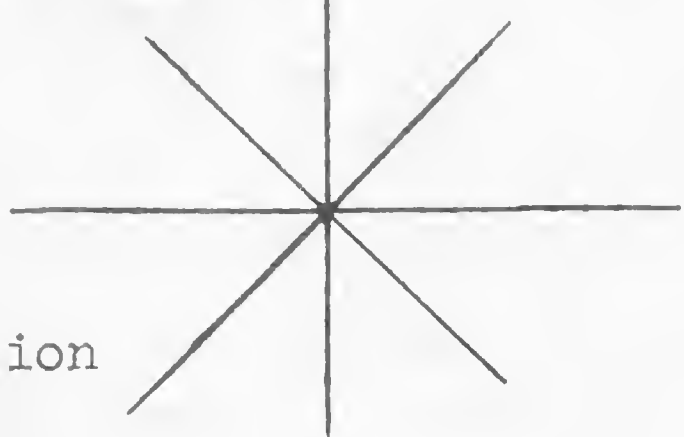
Pg. #

5

TIME SPECIES # DIR. BAND NO. REMARKS

14					Leave San Nicolas
14 45	Begin observations				
	Cormorant	1			sitting
14 48	Brandt's	1			"
	Corm.				
48	"	1			"
53	West. Gull	1	⊙		ad.
15 00	"	5			sitting (ad.)
	Herring Gulls	5			
00	Sooty Sh.	1	⊙		
15 01					CC to 225 True.
02	Sea Lion	2			
03	Herr. Gull	4			2 ad. 2 imm. } Sitting on Kelp
	West. Gull	2			
08	"	7			sitting
08	Herr. Gull	4			"
08	Sooty Sh.	1	⊙		
08	Sea Lion	2			
10	PF Shear	1	⊙		
	Sooty Sh.	4	⊙		
12	Herr. Gull	1			Imm. Sitting on Kelp
14	Western G	1			Sitting on Water
15	Shearwater sp.	4	⊙		
20	Rhino A	1			" " "
21	Pink-foot	1	⊙		
22	"	4			Sitting on H ₂ O
	Western G	1			A
	Sooty Sh	13			
23	" "	2	⊙		
24	"	1	W		
25	Cormorant sp.	2			sitting
30	Shearwater sp.	1	W		
33	Sooty Sh	1	W		
	Western Gull	2			adults - sitting
	" "	1	⊙		Imm.

145 225
true



Ship
Direction

Sioux City
~~Rev. 10/1/68~~ EASTROPAC
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DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

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Church
DeLong
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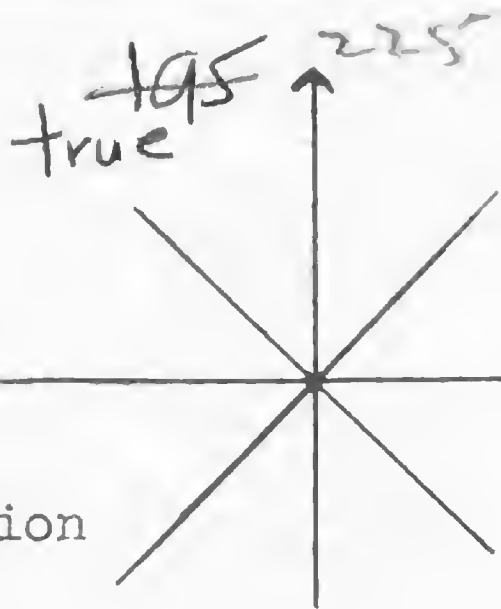
Date 4/7/68
Pg. # 6

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

15	35	Sooty Sh	4	E		
		Cormorant sp	2			sitting
		Western G	1	NW		Imm.
16	36	"	1			adult - sitting
		Sooty Sh	5			"
	40	Jaeger	1			
		Sooty Sh	1			Jaeger attacking sooty
		Pink Pink-foot	1	Q		
	41	Sooty Sh	3	E		
		" "	1	NW		
	42	Rhino A	2			sitting
		Sooty Sh	2	SW		
	50	Pom. Jaeger	2	Q		
		Sooty Sh	2	N		
	51	"	1	N		
		West. Gull	3			sitting - 1 a, 2 imm.
		Sooty Sh	1	N		
	53	" "	1	N		
	54	Pink-foot	1	N		
	56	Pom Jaeger	1	N		
		Sooty Sh	1	N		
	59	Jaeger	1			landed
16	02	Sooty Sh	1	N		
	03	"	1	S		
	08	"	2			sitting
		Pink-foot	4			
	11	West G	1	W		Imm
	13	Sooty Sh	2	S		
	16	West G	1	O		
	18	Sealion	2			
		Elephant seal	1			
		Sooty Sh	70 +			sitting
		Pink-foot	4			
	20	Sooty Sh	1	N		
	23	Gull sp	1	N		



Ship
Direction

Sinai City
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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

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Church
DeLong
Kleen

Date 4/7/68
Pg. # 7

SPECIMEN

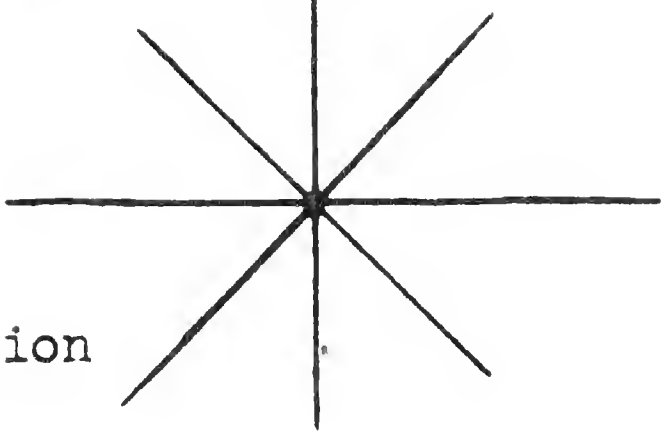
or

TIME SPECIES # DIR. BAND NO. REMARKS

1626	Sooty Sh	1	S		
	Pink-foot	1	N		
28	Sooty Sh	1	S		
	West G	1			adult sitting
	Sooty Sh	1			"
32	Gull sp.	2	N		
35	Rhino A	1			sitting
37	"	1			"
38	Sooty sh	3			"
39	Earled Seal	1			
39	Jaeger	2			each Jaeger attacking 1 Sooty. 1 Sooty immobilized.
	Sooty Sh	2			
42	Jaeger sp	1	S		
45	Sooty sh	1	S		
	Gull sp.	1	O		Imm.
	"	1	N		Imm.
	Rhino A	1			sitting
46	Pink-foot	1			"
	Sooty Sh	4			"
47	Pink foot	1	S		
	Sooty Sh	1	S		
51	Sooty sh	3			sitting
	Gull sp	1			
52	G/cid sp	2	NW		
55	Rhino A	1			sitting
56	"	2			"
57	West G	3			now following - 2 A, 1 I
1700	N. Fin Seal	1			
02	Gull sp.	2			immature now following
06	Sooty Sh	1	N		
10	" "	2	S		
14	Gull sp.	3	O		immatures
15	Jaeger	1	N		
16	"	2			on water.
16	Phalarope	2			" "
17	BFA	1	O		
19	Pom Jaeg	1	N		
24	Pink-foot	2	N		
31	"	1	S		
35	Sooty sh	1	N		sitting
	" "	1			



225 true



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

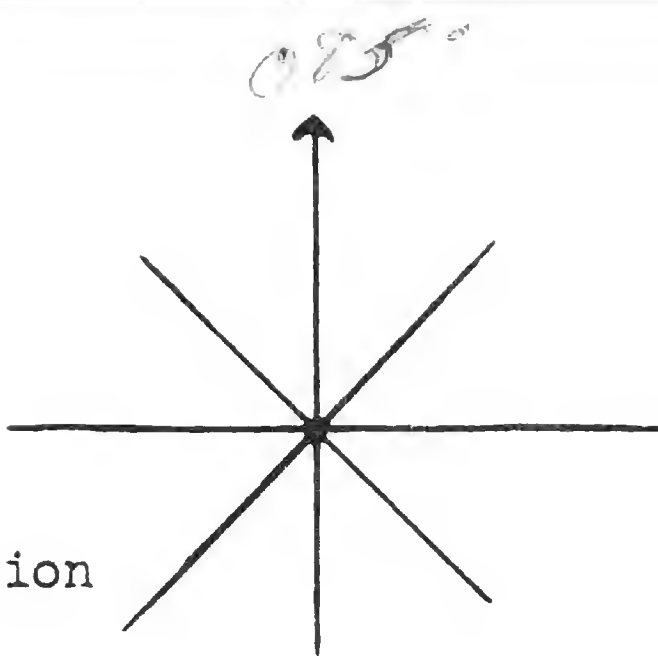
OBSERVERS:

Brownell
Church
DeLong
Kleen

Date 4/7/67
Pg. # 8

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1740	Taeger	1	S		
42	"	1	N		
43	Sooty sh	2	W		
46	"	86	SW		Small delphinids also - 15. c. 1000 Lagoon Pelicans.
46	{ Pink-foot	10+	SW		
50	Sabine's G.	1	N		
50	R. Phalarope	1			sitting
55	Pink-foot Herring G.	1	N N		adult
1800	Sooty Sh	200+			Sooty on HOKI and fly ing.
	Pink footed	20+	SW		
1800					large catfish blow quite loud, handkerchief
1810					ca 25 feet high - large Balaenoptera
1822	Sooty Sh	5	SW		Callorhinus - white whiskered - 2 1
1823	Pink-foot	1	N		Callorhinus - 1
1826					Small (1000 ft up) - 1
1830					SS - Chase sh.



Ship
Direction

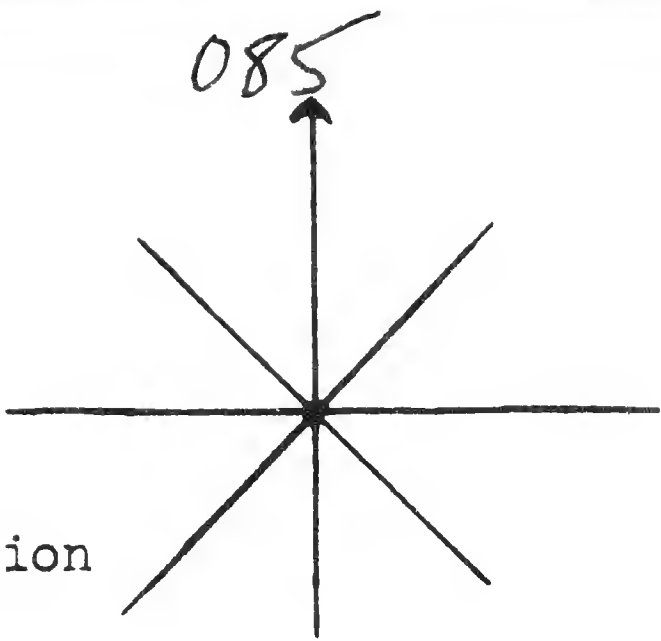
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 8 April 68
Pg. # _____

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1300					abundant. (one ^{P.B.F.A.} , 3 Herring gulls (3 Phalaropes) (2 ad - 1 first year)
1340	1 Herring gull	1			1 first year.
1407	WRSP	1	SW		
1415	Herring gull	1	SW		Following - 1 Ad.
1450	WRSP	1	SW		
1700	WRSP	1	SW		
1745	R. Phalarope	1	SW		blue line Hoth
1805	R. Phalarope	1	SW		
1830	Red phal	1	SW		
1832					SS Blue obs.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Church

Date 04/09/68

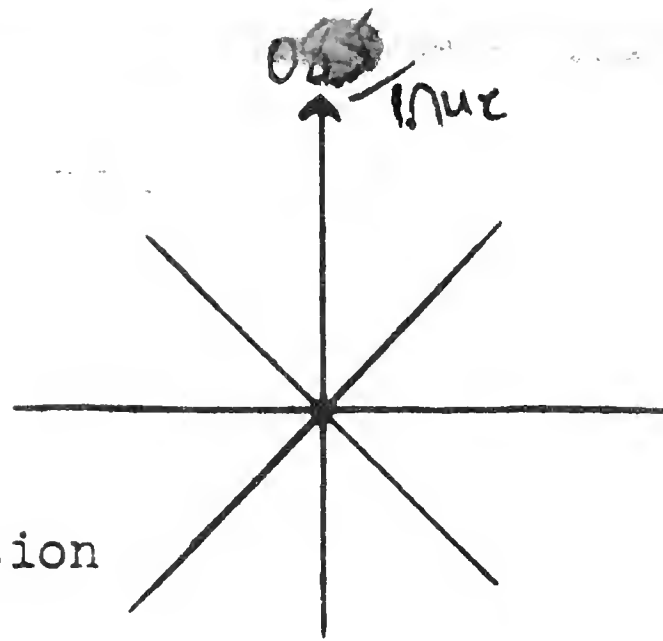
Pg. # 2/1

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

0715	Begin observations			
	BFA	4	0	
16	Phalarope	3		on water
17	Sooty Sh	1	N	
18	" "	2	N	
19	Shearwater	3	N	
20	" "	1	N	
24	" "	2	N	
25	Sooty Sh	1	N	
26	" "	18	N	
27	" "	8	N	
29	" "	24	N	
30	" "	5	N	
33	" "	2	N	
33	Gull sp.	1	N	
35	Sooty Sh	5	N	
38	" "	9	N	
44	" "	4	N	sitting
44	" "	1		
45	" "	2	N	
46	Pom. Jaeger	1	N	
50	Sooty Sh.	12	N	
51	Shearwater	69	N	
52	Sooty Sh	18	N	
55	" "	5	N	
56	" "	44		sitting
0800	Phalarope	1		"
	Sooty Sh.	2	S	
01	Gull Sp.	1	N	
	Shearwater	1	N	
02	BFA	2	0	now following
03	Shearwater	6		sitting
05	Sooty Sh.	15		"
05	Mammal sp			lying on back both hind flippers out of water.
08	Shearwater	5	N	
11	Storm pet	1	N	
11	Shearwater	1	N	
11	Gull sp.	1	N	



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Church
Kleen

Date 04/09/68

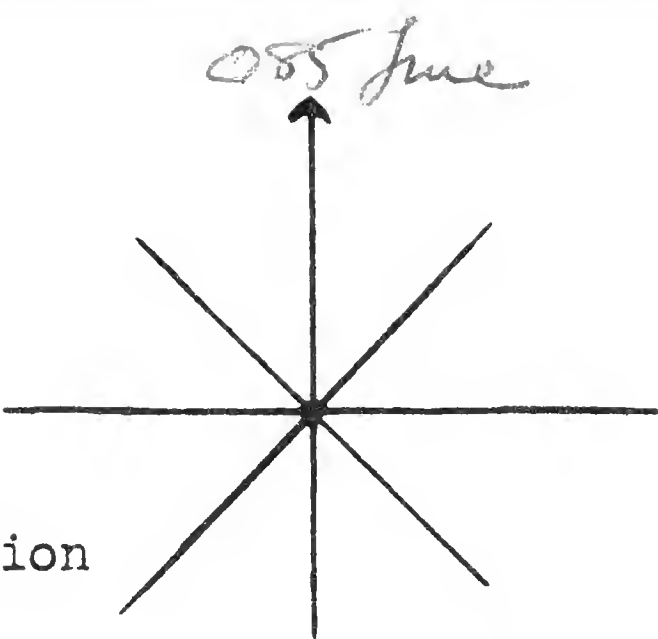
Pg. # 2

SPECIMEN

OR

DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0815	Sooty sh.	15	N		
16	" "	3	N		
18	shearwater	4	N		
18	Herring G	1	O		Immature
19	Sooty Sh	19	N		
20	Phalarope	3			sitting
25	Sooty sh	15	N		
28	" "	9			sitting
2850					breakfast
51	Sooty sh	1	N		
55	Herring G	2			immatures - on water
0902	Porpoise	1			
	Gull	1			sitting
05	Sooty sh	18	NW		
	" "	2			sitting
	Porpoise porpoise	5+			
	Jarger	1	NW		
08	Sooty Sh	4	SE		
	" "	2			sitting
10	Jarger	1	SW		
10	Sooty sh	3	SW		
14	Rhino A	1			sitting
16	" "	2			"
17	Sooty Sh	1	S		
18	" "	1	E		
20	" "	1	S		sitting
22	Rhino A	1			"
	Rhino A	1	NE		
55	Sooty Sh	1	SE		
	Pom. Jarger	1	W		Light phase
20	" "	2	NW		" "
27	1krs. Gull	1	SW		2nd year
28	Sooty Sh	1	SW		
29	" "	18			Sitting, then flew East.
	Pink-foot	2			
34	Sooty Sh	300-340			feeding flock
	BPA	2			
	Pom. Jarger	2			during at a Sooty Shearwater



Ship
Direction

Sirius City
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DIVISION OF BIRDS
AT SEA DAILY LOG - E

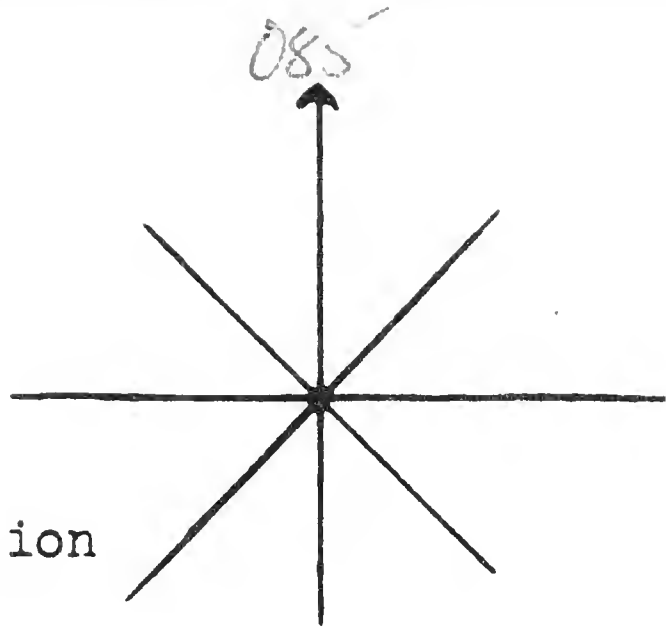
OBSERVERS:

Church
Brownell
DeLong
Kleen

Date 9 Apr 68
Pg. # 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
09 34					PERPHIDUS ca 50 - several subgroups milling about and forth E birds feeding no white patches in dorsals - general active sit
36	Sooty Sh	42			sitting
34					ONE NORTHERN FUR SEAL - PLUS TWO OTHER LEARD SEALS IN THE DISTANCE
50					ca 25 Lagenorhynchus to some extent probably feeding - some juveniles noted
	Sooty Sh.	200 ± 20			sitting
	Pomarine Jaeger	2			Light Phase attacking Sooty Sh
52	Sooty Sh	29			sitting
53	"	72			"
	Pomarine Jaeger	2			flying over the flock
58	Jaeger	1	N		
	Jaeger	1	N		
10 00	Herring G	1	O		now following, immature
05	Sooty	1	S		
05	Rhino	2			sitting
06	Sooty Sh	2	S		
	BFA	3	O		now following
07	Sooty Sh	60 ± 20			sitting
	" "	1	W		
13	Herring G	1	S		Advent
14	Pom Jaeger	1	NW		
15	" "	1	NW		
17	Red Phalarope	1	N		
	Sooty Sh	4	N		
23	" "	2	N		
24	Sweet Bird	1			
M 25	Delphinus	10 ±			
30	Sooty Sh	1	S		
32	" "	1	SE		
38	" "	1	N		



Ship
Direction

Sinox City
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

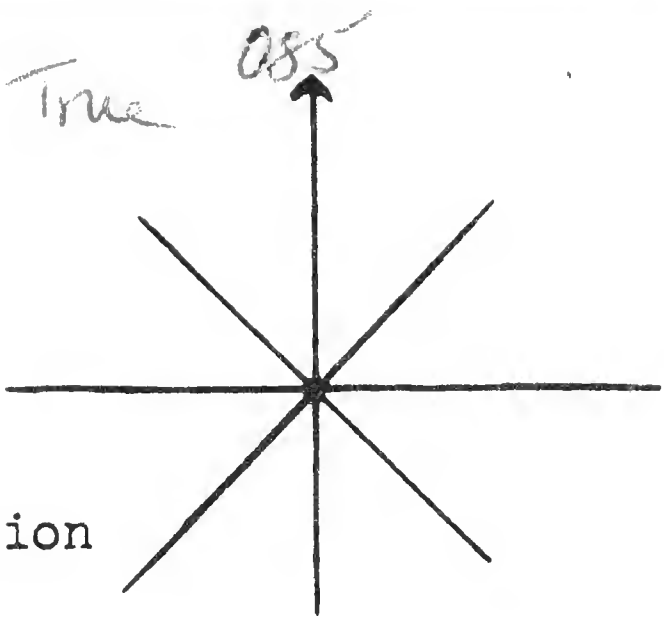
OBSERVERS:

Brownell
Church
DeLong
Kleen

Date 04/09/68
Pg. # 4

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
10 43	Taeger	-1	S		
	Sooty Sh	-1	N		
10 35	Callorhinus				N fur seal, <i>Callorhinus ursinus</i> lying in kelp on its back with both hind flippers out of water
11 00	Sooty Sh	-1	SW		
01	" "	-2	S		
06	Pom. Jaeger	-1	W		Light phase
07	Sooty Sh	-1	S		
07	" "	-1	S		
08	" "	-4	S		
"	" "	-1	S		
09	Pom Jaeger	-1	S		
09	" "	-1	S		
09	Cull sp.	-1	S		immature
10	Sooty Sh	-1	SW		
12	" "	-1	N		
13	Taeger	-1			sitting
15	Pink-foot	-2	SW		
		-2			Otarid } California Sealions
16	Pom. Jaeger	-1	W		
20	Shearwater	-116			sitting
20	Killer whale	1	NW		
24	Pom Jaeger	-1	S		
26	Taeger Pom	-1	S		
26	Sooty Sh	-2	S		
27	" "	-1	S		
27	" "	-1	S		
28	Pom. Jaeger	-1	S		light-phase
30	" "	-1	S		
M 40	Delphinus	-15	NW		
M 43	Otarids	-5			
M 45	Otarid	-1			with floating <i>Nereocystis</i>
46	Sooty Sh	-1	W		
47	Pom Jaeger	-1	W		light phase
M 50					probably <i>Lagenorhynchus</i> sp. 15 divided into at least three subgroups - NOTED jumping in circle of no direction - probably feeding & BERT.
55	Sooty Sh	-1			
55	Pink-foot	-2			sitting
55	Shearwater	-4			"
55	Western G.	-1	SW		immature
	BFA	-2			now following



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Brownell
Church
DeLong
Kleen

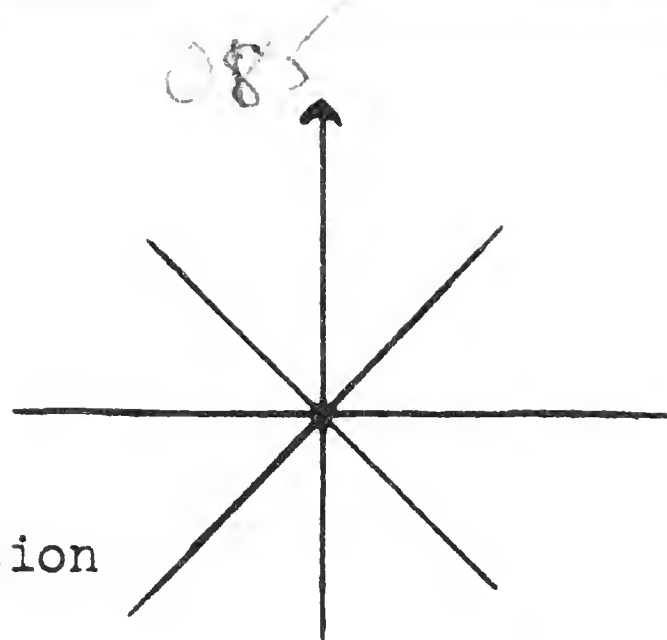
Date 04/09/68
Pg. # 5

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

1200	Sabine's G	-1	N		stopped and fed
00	Pom. Jaeger	-1	S		
04	Sooty	-1	S		
05	Pom Jaeger	-1	W		
06	Sooty Sh	-1			lost
06	Pom. Jaeger	-1			Jaeger chasing Sooty -
06	Sooty Sh	-1			
07	Pom. Jaeger	-1			
08	Western G	-2			now following - subadults
12	Sooty Sh	-1	W		
12	Pink-foot	-1	W		
17	Sooty Sh	-1	S		
18	Red Phala.	-1			sitting
21	Mola mola	-1			(fish) - <u>Neoromulus</u>
M 1226	Mitoma angustirostris	-1			young - all yr - Costa banks
1229	Sabine	-1	ee		
1229	Gull sp.	-1	ee		is on 5 miles to north
1234	Gull	-1			
1240					ON log immature
1241	Sooty Sh	-2	Re		<u>Zalophus</u> & <u>Neoromulus</u> on bank & one fresh bird flying
1246					
1247	Sooty Sh	-1	Re		Two <u>Zalophus</u> - not together - one swimming
1305	Lincoln's Sparrow	-1	on deck		collected by RLD
12	Pamerine	-1	O		probably Song Sparrow
15	Sooty Sh	-6	N		
28	" "	-2	N		
32	" "	-1	N		
32	" "	-2	N		
33	" "	-1	N		
38	Pom Jaeger	-1			sitting
44					
44	Pom Jaeger	-1			on water
44	" "	-1			parasitizing
44	bird sp.	-1			



Ship
Direction

Sioux City
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Brownell
Church
DeLong
Kleen

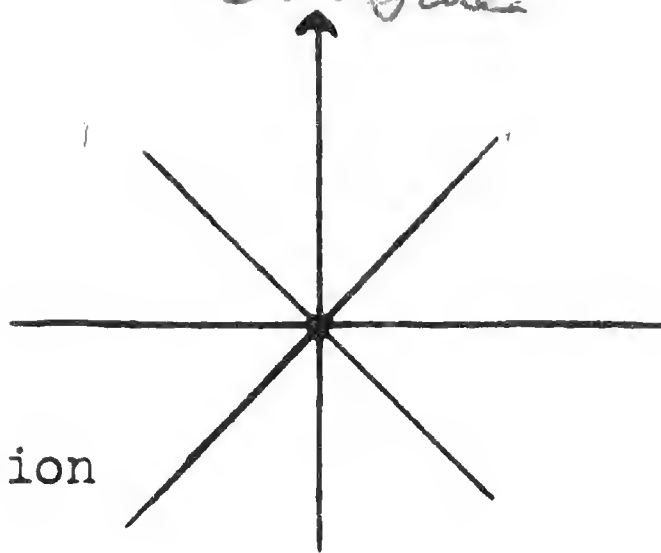
Date 9 April 68
Pg. # 6

SPECIMEN

or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1335					Mink (Little Piked) B. arcticus-like 2 animals moving generally north Probably a cow and large calf. Cow had white flame forward on side. (LT.)
1345	Pom Jaeger	4	SE		
55	Zalophus	2			
59	Sooty Sh.	1	S		
14 00	" "	3	N		
	Pom Jaeger	1	N		
02	" "	1	N		adult light-phase
11	Sooty Sh	1	NW		
12	Western G	1	O		
15	Sooty Sh	1	O		
17	Jaeger, Pom	1	N		
22	Sooty Sh	1	N		
30	" "	2	N		
37	Hummingbird sp	1	N		
42	Sooty Sh	1	N		
48	Pom Jaeger	2	N		Adults - light phase
53	Sooty Sh	2	N		
15 00	BFA	2			now following
15	Sooty Sh	1	N		
25	Gull sp	2	N		
38	Sooty Sh	1	N		
52	Sooty	1	see		
16 04	Pom Jaeger	1	see		adult phase
10	Pink Eyed Sh	2	N		
19	Sooty Sh	1	see		

085 True



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Church
Nelson
Braun
Reen

Date 9 Apr. 68
Pg. # 7

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
16 36	Sabine's Gull	3	N		
37	Pink-foot Sh	1	N		
50	Pink-foot Sh	1	N		
51	Sooty Sh	1	N		
58	Sooty Sh	1	N		
17 00	Duck sp.	2	N		white in back & wings, possible Rb Merg.
17 02	Whiskered Auklet	2	Cal		A-1
09	Sooty Sh.	1	N		
19	Pink-foot Sh	1	N		
44	Sooty Sh	1	NW		
54	Pom Jaeger	1	E		lt. phase
18 21					SUNSET